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# Waiting for the tide

with the editor

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## Applying common sense at sea

Being a skipper carries

great responsibility

oat owning is fun - that's why we do it. Most PBO readers derive pleasure from the whole experience, whether it's a gentle summer's cruise, an exhilarating beat or the creativity of maintaining and improving your boat. But being a skipper is also a position of great responsibility. When you take your boat to sea you accept a duty of care for your crew, your vessel, your environment and, by inference, those around you.

That's why the MCIB's terse summary that the sail training vessel Astrid 'should not have been at sea' (see News, page 7) is such a damning indictment. While a private boat owner's responsibilities are largely enforced by conscience and common sense, any boat carrying passengers has these duties set out in

a necessarily stringent set of rules. If these are not adhered to, the vessel is not

allowed to put to sea. Astrid and her crew were not appropriately certified, so the vessel should have stayed in port.

While I'm happy to accept that many competent sailors have never had a shred of training – some of the best sailors I've met have never even considered taking a course – anyone with responsibility for a vessel and crew should ensure that their vessel is seaworthy, and that they know the correct emergency procedures. In this case, however, it transpires that four major things went wrong:

- Water entered the fuel in error when the vessel took on fresh water in Brighton, and was not adequately removed.
- Inadequate passage plans were made for the voyage or conditions, and may have been influenced by 'the desire for photograph opportunities'.
- When the engine failed, the distress call made did not follow the Mayday format and contained no position, costing valuable rescue time.

■ Neither anchor was deployed, showing that once the crew found they could not sail off the lee shore, no attempt was made to stop or slow the drift onto the rocks.

Thanks to the efforts of the RNLI and the Irish Sailing Association no lives were lost, but to rely on these brave men and women to rescue what was an avoidable situation is irresponsible. We are incredibly fortunate to have a free rescue service crewed by intrepid, tolerant and uncomplaining volunteers, and it seems not unreasonable to reward them with respect. In the case of STV Astrid, I would argue that this respect is lacking in the generally inadequate preparation shown in the four points above.

How those concerned are dealt with is up to the authorities, but for the rest of us the message is clear – ours is a dangerous

sport, and it is only with adequate training and preparation that we

should consider going to sea. There are courses for nearly every aspect of boat handling, passage planning and maintenance, or you can learn informally from other experienced sailors. I would be loth to see enforced training, but when you see people on the water who don't take responsibility for their own and others' safety it ruins the freedom that drives so many of us to go afloat. We live in a mad world hemmed in by health and safety regulations, and the water is one of the last bastions of common sense - let's keep it that way by using some, and limit our emergencies to the unavoidable.

This month we bring you our annual guide to marina berths and their prices, handy tips for short-handed sailing, some hints for older sailors, a man's quest to make his dinghy amphibious, plus many more articles and projects. There's lots to read – I'll detain you no longer! Fair winds,

David Pugh

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News and current affairs from the world of boating

## Fourteen sites dropped from proposed Marine Conservation Zones

The RYA and Boat Owners Response Group welcome the Government's decision to drop 14 sites, including Studland Bay, from the latest line-up of MCZs

consultation is under way on the second tranche of sites to be considered as marine conservation zones (MCZs).

The Department for Environment, Food & Rural Affairs (Defra) consultation will run until 24 April 2015. Everyone is invited to give their views on whether 23 sites in English waters should become areas of sea protecting rare or important features from damaging activity. It also seeks views on the proposal to add additional conservation features to 10 existing MCZs.

In February 2014, the Government announced 37 potential candidate sites for the second tranche of MCZs, but 14 of the candidate sites were later deemed unsuitable for designation at this time. This includes four sites around the Isle of Wight and in Studland Bay, where it was acknowledged by the Government that designation may have significant management implications for local sea users (particularly potential mooring and anchoring restrictions affecting recreational boaters). The



The Government acknowledged that MCZ designation in Studland Bay 'may have significant management implications for local sea users'

remaining 10 sites are not immediately adjacent to the coast, so are unlikely anchorages.

The Royal Yachting Association (RYA) says it stressed the need for objective and robust evidence to support MCZ designation to the Environmental Audit Committee and raised its concerns with the Marine Environment Minister following the announcement.

The RYA has welcomed the Government's decision not to proceed with these 14 sites at this time. Emma Barton, RYA planning and environmental manager, said: 'We will continue to support the

designation process while striving to minimise the potential impact of MCZs on the navigational rights and safety of recreational boaters.'

The Boat Owners Response Group (BORG) science advisor Dr Mike Simons said: 'It is our view that the evidence surrounding potential damage to eelgrass in these sites from leisure boating is weak: we understand that Natural England is due to review its advice package in this area. While the sites are not withdrawn from future consideration, there is clearly not a sound case to designate them as MCZs at this stage.'

The Maritime Conservation
Society (MCS) and National Trust
say that dropping Studland,
Bembridge, Norris to Ryde and
Yarmouth to Cowes from the
consultation have put at risk the
future of the spiny seahorse,
mantis shrimps and seagrass
meadows. MCS spokesman Dr
Peter Richardson said: 'We are
alarmed that these proposed
MCZs have been shelved.'

Simon Pryor, National Trust spokesman, added: 'It's disappointing that we're not even halfway to the original target of 127 that the Government outlined just two years ago.'

The MCS says that all 23 sites being consulted upon must be designated. These include the Cromer Shoals chalk beds, Farnes East, and the Gannel estuary in Newquay. A third tranche will follow in 2016.

■ Visit www.defra.gov.uk to have your say. The outcome of the consultation is expected in December 2015. The RYA is holding its own public consultation: for further information, email environment@rya.org.uk

## RYA objections to harbour authority designations

The Royal Yachting Association (RYA) is objecting to a number of harbour authorities being designated until recreational boating interests are represented on Port User Groups.

It follows the RYA's participation in the Government's consultation on applications received from statutory harbour authorities for 26 harbours in England and five non-fishery harbours in Wales requesting to be designated with the power to give harbour directions, pursuant to the Harbours Act 1964 (as amended by the Marine Navigation Act 2013).

Gus Lewis, RYA head of legal and government affairs, said: 'The Code of Conduct stipulates that any harbour authority using the powers under the act should set up a Port User Group for consultation and dispute resolution purposes.

'Provided those groups include representation of recreational boating interests and users' organisations in the harbour, including the RYA itself and any RYA-affiliated sailing clubs located in the relevant ports, we are content with the proposed arrangements.

'It is however disappointing that

some statutory harbour authorities applying for designation appear not to have established arrangements for stakeholder consultation, as required by the Code of Conduct. We have therefore objected to a small number of harbour authorities being designated until a meaningful stakeholder or user group has been established including representation of recreational boating interests.'

In December 2013, PBO reported that a Code of Conduct for Harbour Directions had been published to balance out the forthcoming unrestricted powers for harbour authorities. The RYA has welcomed the fact that the statutory harbour authorities for all 31 harbours have provided an assurance statement that they will abide by the Code of Conduct on Harbour Directions, which was pioneered by the RYA and agreed by industry and other user representative organisations.

While the code is not legally binding, it has Government support and designated harbour authorities are expected to comply with it. It is anticipated that the successful harbour authorities will be designated later this year.

## Grounded *Astrid* 'should not have been at sea'

An investigation into the grounding of an historic tall ship, which sank off west Cork, Ireland with more than 30 people on board, has found a catalogue of failures and breaches of international regulations.

The Marine Casualty Investigation Board (MCIB) report, published on 21 January 2015, highlights poor route planning before the Dutchregistered Astrid sail training passenger ship set sail past the Sovereign islands. The 'immediate cause of the ship grounding and subsequent sinking' on 24 July 2013 was attributed to loss of power from the main engine, which stopped as a result of freshwater contamination of the fuel. This was due to 'human error' when taking on fresh water in Brighton on 12 July 2013 and then 'insufficient action' to remove the freshwater from the fuel system.

1100 on 24 July 2013: half an hour later its sails had been taken in, but the engine was still in use. At 1140 the engine failed and the ship was unable to sail out of the situation.

The Marine Rescue Coordination Centre (MRCC) received 'a blind call' from the STV Astrid at 1144 with no position or Mayday. No further information was received, despite the Marine Rescue Sub Centre (MRSC) Valentia making repeated calls on VHF Ch16. At 1154 the yacht Adastra relayed Mayday information from Astrid: 'on rocks with 30 persons on board, 0.5NM west of Oysterhaven Bay'.

After an unsuccessful attempt by an Irish Sailing Association Rigid Inflatable Boat (RIB) to assist Astrid, the tall ship was blown onto the rocks. No attempt was made to drop either anchor and possibly prevent the vessel going aground. Twelve passengers were



The stricken tall ship Astrid, which sank off west Cork in 2013

The report states that 'passage planning of the voyage from Oysterhaven to Kinsale was inadequate' for the Force 6 wind and was 'influenced by the desire for photograph opportunities for Ireland's 2013 Gathering initiative'.

The report criticised an ineffectual Mayday call, which cost rescuers 10 minutes, and concluded: 'Astrid was not certified as a passenger ship for EU or international voyages, nor were the crew appropriately certified, and the ship should not have been at sea'.

The 42m (138ft) former cargo ship, built in 1924, was one of 50 vessels participating in a five-mile journey as part of the Gathering sailing festival. On board were 24 trainee sailors aged 15 to 24 from Ireland, Holland, the UK, France, Belgium and Spain, plus a mentor and five crew. The ship set off at

transferred to the RNLI Kinsale inshore lifeboat RIB and transferred to the yacht *Spirit of Oysterhaven*. The remaining 18 passengers and crew jumped into a liferaft and were towed away from the ship by the RIB. They were transferred onto the RNLI lifeboat from Courtmacsherry. By 1333 everyone was safely ashore at Kinsale.

Astrid sank and was later salvaged in September 2013, but scrapped due to 'the extent of the damages'. The MCIB report found that SOLAS Chapter V Regulation 34 was not complied with. MCIB safety recommendations include advice that the master of a tall ship must retain authority when taking part in promotional activities, and that good passage planning or the safety of a ship, crew or passengers must not be compromised. Read the full report at: www.mcib.ie

## **PBO** Prize draw

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 $\blacksquare$  For more information about the hotel, visit www.careysmanor.com

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Nine runners-up will each receive a pair of tickets to the Beaulieu Boatjumble which includes entry to the National Motor Museum, Palace House and gardens, Beaulieu Abbey and World of Top Gear.

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## To enter, visit www.pbo.co.uk/boatjumble15

**CLOSING DATE FOR ENTRIES:** 1st April 2015. winners will be contacted by phone within two weeks of the competition closing date

1 Excludes drinks, travel and extras. Guests can pay hotel for additional costs and drinks. 2 Prize is only valid for Saturday 25 April 2015. Prizes are non-transferable, non-refundable, non-changeable and no cash alternatives are available. Unless specified otherwise, if a prize remains unclaimed for six months it will not be awarded, provided reasonable attempts have been made to contact the winner using the contact details supplied. By entering, you confirm that Careys Manor may make any use of your entry as they require, including publishing it on their website.



### **Turkish visas discourage cruisers**

oat owners cruising in Turkish waters are facing more difficulties because a new law regarding residence permits is confusing everyone concerned, the Cruising Association (CA) has revealed.

Visitors' visas to Turkey for cumulative visits of up to 90 days in a rolling 180 days are easily obtained online – an agreement that matches the Schengen regulations for non-EU citizens. But boat owners wishing to cruise for longer then have to apply locally for a residence permit before the 90-day limit is reached.

The new law – 6458 – which came into force last April, means that anyone cruising in Turkey can only apply for a residence permit for a 3-12 month period, and this requires difficult documentation. Before that, cruisers wanting to stay longer could easily apply for a residence permit which would last for up to five years.

At a meeting in January 2015, the CA learned that the Turkish Foreigners Department told the British Consulate a 120-day cancellation provision within the new law would be applied, based on cumulative periods outside Turkey over a 12-month countback basis. There is speculation the 120 days might be extended to 180, but this will only alleviate the problem if, instead of counting back, it only applies to the period of the current residence permit.

It has also been indicated that the cancellation clause will apply to holders of the old-style



CA member Graham Knight's boat, Athene of Lymington, in Turkey last year

longer-term permits. This means that now, if a boat owner has left for a cumulative period of more than 120 days (or possibly 180) in the previous year, the residence permit will be cancelled on re-entry and the boat owner must return on an e-Visa until a new residence permit is obtained.

Under the new law the cancellation clause applies to all types of permit, but it would be logical to exempt permits of 12 months and less from it.

CA spokesman Bill Anstead

said: 'What I will recommend to CA members based in Turkey, if the interpretation of the law does not change, is that they enter every year on a visitors' visa, perhaps in April, and a few weeks before going home for the hot months apply for a residents' permit for just 5-6 months to the end of their season. This will keep cost of visa and permit to a minimum, about \$70 per annum in total, and also minimise local insurance costs etc.'

www.cruising.org.uk

#### ISAF to challenge IPC decision on Paralympic Games programme

A decision by the International Paralympic Committee (IPC) not to include sailing on the Tokyo 2020 Paralympic Games sports programme has shocked the sailing community.

The International Sailing
Federation (ISAF) and its 139
Member National Authorities have
pledged to fight for sailing to be
reinstated at the Paralympic
Games. ISAF is asking sailors
across the world to unite on behalf
of all disabled sailors and to email
letters of support to disabled@
isaf.com. These will be sent to the
IPC with a package of information
about Paralympic sailing.



Helena Lucas, 2.4mR sailor, in action

The Paralympic Games is the ultimate pinnacle for disabled sailors, with many varied disabilities competing on equal terms. A Royal Yachting Association spokesman said it would support ISAF 'if there is any further recourse to be had', and added: 'As we understand it, there are currently only 22 out of a maximum possible 23 sports on the programme for Tokyo 2020. In the meantime we'll be doing all we can to get our teams on the podium for Rio 2016.'

The Jubilee Sailing Trust, Cruising Association and British Marine Federation have also spoken of their disappointment about the IPC decision.

## **Services to cruising recognised**

The National Coastwatch Institution (NCI) has been awarded the Royal Cruising Club's (RCC) prestigious Medal for Services to Cruising, for its contribution to sea safety.

Paul Heiney, RCC Vice Commodore, told the voluntary organisation: 'In recognition of your first 20 years, and also the growing contribution you are making to the safety of yachts at sea, we are awarding the National Coastwatch Institution this year's Medal for Services to Cruising, which we very much hope you will accept.'

NCI chairman Alan Richards said: 'I am delighted to accept this recognition of our work on behalf of the 2,000 or so volunteers who make the whole operation possible. I know how much it means to them to see that their efforts are appreciated, and there can be no better example of that appreciation than this award from an organisation with an enviable history of cruising.'

The medal will be presented at the Royal Cruising Club Annual Dinner at the Royal Thames Yacht Club in London on March 5.



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A total of 24,000 visitors took part in last year's RYA Push The Boat Out

### **Nine-day Push The Boat Out**

or the first time ever, RYA Push The Boat Out will be running over nine days, giving even more people the chance to experience sailing and windsurfing across the UK.

Sailing clubs and centres are being encouraged to hold activities to showcase what the sport of sailing has to offer, from the freedom of being on the water to the social buzz and the thrill of racing. Last year, around 24,000

visitors took part in 260 open days and sailing taster sessions across the country for the Push the Boat Out weekend.

This year's event will run from 9-17 May, and organisers are hoping that even more clubs and centres to throw their doors open to the general public.

RYA Push the Boat Out 2015 sessions must be registered by early March.

www.rya.org.uk/programmes/

### **PBO Ask the Experts Live line-up**

opics and experts have been confirmed for the PBO Ask the Experts Live event.

We are building on the success of our Ask the Experts pages by bringing the free service to life at Beaulieu Boatjumble! For this new attraction, we are teaming up with Beaulieu and the RYA Active Marina team to host a large all-weather marquee area from 9.30am-6pm on Sunday, 26 April 2015.

Join us for free practical presentations, demonstrations and the chance to quiz the experts about your boating questions.

We'll also be showcasing the PBO Project Boat, Hantu Biru.

- Confirmed topics and experts so far include:
- Basic glassfibre skills: Wessex Resins
- Using sealants: Sika
- Painting your boat's hull: International Paint
- Polishing and restoring faded glassfibre: Silky Marine
- Lifejacket servicing: RNLI
- Surveys: Nick Vass
- Electronics and radar: Alan Watson
- Preparing your boat for long-distance cruising: Ocean Cruising Club
- A liferaft demonstration: Ocean Safety
- Using tablets for navigation: The visitmyharbour.com team Visit www.pbo.co.uk/expertslive for a detailed itinerary.

To get a 15% discount on advance Boatjumble tickets, simply visit the Beaulieu website, www.beaulieuboatjumble.co.uk, and quote PBOMAG15. Code valid from now until 19 April 2015.





Westerly Oceanranger 38

Verdict	The original treatment lasted 17 years.
Photo	October 2013 with owner
Treatment	Coppercoat® anti-foul applied 1996
Location	Inverclyde
Boat name	Maalesh



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### **Fatal CO poisoning on motor cruiser**

A Marine Accident
Investigation Branch (MAIB)
report has been published
following the tragic deaths of a
mother and daughter caused by
carbon monoxide poisoning on
a motor cruiser on Lake
Windermere. Hazards of DIY
work have been highlighted by
the investigation.

The tragedy occurred on board the Bayliner 285 *Arniston* on Windermere on 1 April 2013.

#### What happened?

On Sunday 31 March 2013, the motor cruiser's owner, with his partner Kelly Webster and Kelly's 10-year-old daughter, Lauren Thornton, took the vessel to Windermere. After Arniston was secured alongside the public jetty, its owner removed a small generator from his work van and installed it into Arniston's engine bay. The owner, a qualified plumber, had modified the generator's exhaust, which he connected to an outlet in the boat's hull. During the evening, the group met up with friends to celebrate a birthday. The generator on board Arniston was running, and the exhaust was seen to be working.

HO WATER.

ABOVE The Bayliner 285 Arniston

LEFT This soldered joint failed

The owner had consumed more alcohol than usual, but was not drunk. Once on board, the generator was turned off, and they went to their beds.

On 1 April, Arniston's owner, Kelly and Lauren woke up suffering with headaches. Both the owner and Lauren were physically sick: the owner attributed his illness to the over-consumption of alcohol. After lunch, the fan heater was put back on. The owner fell asleep at the table. When he awoke, his fingers were numb and he had pains in his chest. When he started feeling better he found Kelly and Lauren seemingly unconscious in the aft

cabin. Neither responded to his attempts to wake them.

#### **Report conclusions**

The MAIB report concluded that the deceased were poisoned by the CO contained in the exhaust furnes from the generator. The report found the generator's external exhaust system had 'failed catastrophically, causing the generator to vent directly into the engine bay instead of outside.'

The MAIB have made recommendations to the Boat Safety Scheme, MCA, RYA, British Marine Federation, Council of Gas Detection and Environmental Monitoring and the Association of Inland Navigation Authorities, to raise awareness of the importance of fitting carbon monoxide alarms.

- Find safety advice at: www. boatsafetyscheme.org/CO
- Full report at www.maib.gov.uk

#### **DIARY DATES**

- The Medway & Swale Boating Association and Royal Yachting Association conference, 7 March, at St George's Centre, Chatham. Tickets £15, or £12 in advance, www.msba.org.uk
- Viking Voyagers exhibition, 20 March 2015-22 Feb 2017, National Maritime Museum, Cornwall, www.nmmc.co.uk
- Craignish Boat Jumble, 28
  March. Opens 10am. Craignish
  Village Hall, Ardfern, Lochgilphead,
  Argyll. £3.50, accompanied
  children and car park free.
- The second Ancasta Boat
  Collection brokerage event, 3-12
  April across Ancasta's UK offices.
  www.ancasta.com/events/
  ancasta-easter-collection/
- Fish & Ships, Portland Marina, 11-12 April, boat and food festival, www.deanreddyhoff.co.uk
- Norfolk Boat Jumble, 12 April, starts 10am, Royal Norfolk Show Ground, Norwich, www.boatjumbleassociation.co.uk
- Irish Boat Jumble, 12 April, opens 10am, Carrickfergus Sailing Club, County Antrim. Admission €5. Accompanied children and car park free, www.irishboatjumble.org
- Beaulieu Boatjumble, 26 April, featuring PBO Ask the Experts Live. Admission from 9am for Boatmall and Boatmart and 10am for Boatjumble, www.beaulieuboatjumble.co.uk
- Horning Boat Show, 2 May, Norfolk Broads, 10am-5pm, www.horningboatshow.co.uk
- Poole Harbour Boat Show, 9-10 May, on Poole Quay, and at Poole Quay Boat Haven marina, www.pooleharbourboatshow.co.uk
- RYA Push The Boat Out, 9-17
  May, www.rya.org.uk/programmes/
  pushtheboatout
- Hamble Boat Show, 16-17 May, Hamble Point Marina, Hamble, Southampton,
- www.hamblepointboatshow.co.uk

  Anstruther Harbour Festival.
- 29 to 31 May, www.anstrutherharbourfestival.co.uk
- Northern Boat Show, 5-7 June, inaugural event at the Albert and Salthouse Docks in Liverpool. Runs alongside the International Mersey River Festival, www.northernboatshow.co.uk
- The 2015 Falmouth Classics Regatta, 12-14 June, www.falmouthclassics.org.uk Send us your diary dates to pbo@timeinc.com, see more online at www.pbo.co.uk

### Pensioner's near-death MOB incident

A 70-year-old yachtsman who was dramatically rescued after falling into the River Conwy returned to thank his RNLI rescuers for saving his life.

At about 2330, the trio returned.

David Stocks from Llandudno fell into the water on 31 January as he tried to board his boat on the River Conwy. He quickly drifted out to sea with the outgoing tide, but managed to grab hold of a vessel

to try staying afloat in the freezing water until assistance arrived.

Luckily, some of Conwy's RNLI volunteers were working nearby when the call for

help was received. They launched the lifeboat within four minutes of the pager's alarm and quickly located David, who was barely conscious due to the extreme cold.

David, who is originally from Bradford, said: 'I was attempting to reach my yacht to collect some tools: the weather was pretty



RNLI crew members Greg Donald and Pete Hughes with 70-year-old yachtsman David Stocks

rough, and the next thing I knew, some spray washed over me and I'm in the water. It got to the point where I just couldn't hold on any more. I was in the water for 12 whole minutes, and I felt every single second. At one point I looked at my hands and they were white, there was no life left. I just

wanted to drift away and go to sleep, but I didn't want to give up.'

Fortunately, a man on the pontoon called for assistance from the RNLI. When the lifeboat reached the scene, one RNLI volunteer got into the river to help support Mr Stocks and keep him afloat. He was then taken by lifeboat to an awaiting ambulance before being treated in hospital.

David described the RNLI crew as 'just brilliant' and added: 'They kept talking to me and asking me about my grandkids to keep me conscious. Apart from a few bruises, I'm alive, and it really does put things into perspective."

The following day, the volunteer crew were delighted to see David walk into the lifeboat station to offer his thanks and make a donation.

(PBO)

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## **PBO** Regional News

#### **News from your cruising area**

Send us your local news stories. Email PBO news editor Laura Hodgetts at newspbo@timeinc.com, tel: 01202 440825, or write to the address on page 5

#### SOUTH

#### **MIXED-USE DEVELOPMENT**

Salterns Marina Ltd is applying to the Borough of Poole Council for planning permission to build a new mixed-use development overlooking Holes Bay.

The application proposes to demolish existing premises at 27-31 West Quay Road, Poole – including those of the Salterns Group's Golden Arrow Marine engineering company –



and to erect a part 13-storey, part five-storey building containing a café, a commercial unit, a restaurant and 64 residential apartments with associated access and underground parking. A public consultation is under way: view the application at www. poole.gov.uk/planning-and-buildings (Ref: APP/14/01653/P).

#### **POOLE BOAT SHOW**

A host of exhibitors are already confirmed for the new Poole Harbour Boat Show 2015 – including Practical Boat Owner magazine. The PBO team will be welcoming visitors aboard project boat Hantu Biru throughout the Poole Harbour Boat Show

weekend of 9-10 May. The restored Snapdragon 23 will be berthed in the Poole Quay Boat Haven marina during the free public event. Other confirmed exhibitors include Sunseeker, Fairline, Windy, Stingher Ribs, Bayliner, Sealine, Spinnaker Yachts, Quicksilver and Cobalt.

Supported by the Borough of Poole and Poole Tourism, the show will include stalls along Poole Quay and on-the-water activities courtesy of local yacht clubs, while the RNLI will be playing a key role. The tall ships *Pelican* and *Stavros S Niarchos* will be open to the public at dedicated times.

www.pooleharbourboatshow.co.uk

#### **SOUTH-WEST**

#### **MARINA EXPANSION DOUBT**

Planning officers have recommended that plans to increase the number of berths in Portishead Marina to 373 be refused after concerns were raised over parking. Local residents and North Somerset Council's principal planning officer say that adding an additional 124 berths, each potentially requiring a corresponding car parking space, would create undue pressure on already congested local roads.

#### **TEMPORARY RESTRICTIONS**

The lock gates at Sutton Harbour in Plymouth will be closed for a week as part of a £250,000 investment scheme by the Environment Agency. The repairs to maintain the city's flood defences will begin from 2-7 March, when the harbour will only be accessible during the published

free-flow periods, and there will be no locking operations.

The second phase of work will involve the closure of the lock gates between 7am-7pm from 9-14 March: boats will be asked to enter or leave the harbour outside of this period. The pedestrian swing bridge over the lock gates will also close between 7am-7pm on 11-12 March.

#### **WALES**

#### **YACHTSMAN FATALITY**

A yachtsman died after falling from his yacht just a few miles north of Steep Holm island. Crews from Penarth RNLI were called out on 1 February to rescue the 72-year-old from Gwent.

Both the Atlantic 85 and smaller D-class lifeboat responded to the call: the crews transferred the man onto the Atlantic 85 lifeboat and took him quickly to the shore at Penarth, giving him first aid the entire way. The man was handed over to the care of the coastguards and paramedics and was taken by ambulance to hospital.

An RNLI spokesman said: 'It is understood that the man has sadly died. The crew's thoughts are with his family and friends.'

#### **SAUNDERSFOOT BOOST**

Plans for the £4million redevelopment of Saundersfoot Harbour have been given a major boost. Grants of £463,500 received from European Regional Development Funding and £200,000 in tourism development cash will be put towards building new visitor pontoons and a new commercial

slipway, placing decking over the existing sluice gates and providing a dry racking area for boat storage.

#### **IRELAND**

#### **ARC TALK**

Cruising Association of Ireland Commodore John Leahy and Clifford Brown (Vice-Commodore East) will be visiting Galway Bay Sailing Club on Wednesday 4 March to meet with the cruising contingent in GBSC. John and Clifford will give an overview on the Cruising Association and look forward to discussing cruising-related issues with Pierce Purcell (Vice-Commodore West) and the local sailing community. John will give a slide show presentation on the Atlantic Rally for Cruisers (ARC), in which he participated a few years back. All are welcome and encouraged to attend.

www.cruising.ie

#### **NORTH-WEST**

#### **NORTHERN BOAT SHOW**

The first Northern Boat Show will take place from 5-7 June at the Albert and Salthouse Docks in Liverpool. The event is expected to attract more than 25,000 boat enthusiasts and will run alongside the International Mersey River Festival, which regularly draws crowds of more than 200,000. Exhibitors are yet to be confirmed, but the show is committed to showcasing a wealth of sailing and powerboats, marine products and services.

Event director Richard Milbourn said: 'Half of all UK boat ownership is north of Birmingham, and yet less than 5% of visitors to Southampton and London boat shows come from the north of England.'

www.northernboatshow.co.uk

#### HARTLEPOOL VISION

Hartlepool Borough Council has unveiled a multi-million-pound regeneration plan which aims to revitalise the town centre and waterfront. Part of Hartlepool Vision, the plans outline how the existing marina, waterfront and the wider town centre could be developed over the next few years. In 2013, the council purchased Jacksons Landing – a former shopping outlet at the marina – as part of the plan.

The Hartlepool Waterfront vision is for a £500million marina development, encompassing Jacksons Landing, Trincomalee Wharf and Hartlepool's Maritime Experience, and the hub of restaurants, cafés, bars and shops nearby at Navigation Point.

#### **CHANNEL ISLANDS**

#### **CENTRALISED CONTROL**

Guernsey is updating and restructuring all of its emergency communications by creating a new hi-tech control centre. The 'Joint Emergency Services Control Centre' (JESCC) will take over as early as March this year. The control room, created at the St Peter Port police station, contains the latest electronic and SAR equipment.

The services involved are police, ambulance (including the marine ambulance), fire, air search and coastguard. All 999 calls and marine radio will be monitored and the operators are being retrained to accept any type of call and respond by dispatching the appropriate emergency service.

There has been some disquiet



Guernsey's new hi-tech control centre at St Peter Port police station

about the special skills that may be called upon when dealing with marine radio and Mayday calls – particularly involving position fixing at sea – where maritime experience might be essential, but the authority responsible for the change insists that the new service will be more streamlined and as efficient as usual.

#### **OBAN BAY AUTHORITY**

Responsibility for controlling operations and marine activities in Oban Bay is to be brought under the control of a single harbour authority. The new authority will co-ordinate traffic using the North Pier, the Railway Pier and ferry terminal, and the Northern Lighthouse Board Pier, each of which is currently operated by different organisations. Commercial vessels and leisure craft will benefit from the change, which the Oban Lorn and the Isles area committee describes as being 'long overdue and a tremendous step forward'.

#### **SEAL DEATH FINDINGS**

Marine Scotland has published the results of research showing 'strong evidence' that predatory behaviour by grey seals, rather than ship propeller injuries, is likely to be the main cause of spiral seal deaths, often referred to as 'corkscrew seals'. Sea Mammal Research Unit researchers observed a grey seal killing five young seals, leaving them with the distinctive spiral seal injuries. Combined with recent similar evidence from Germany, this suggests such behaviour could explain the unusual clusters of injured seals found in Scottish waters. Marine Scotland will continue to fund research into this issue.

#### **PONTOON IMPROVEMENT**

A scheme to upgrade, redesign and improve the summer section of pontoons and provide additional berthing facilities for larger boats is under way at Tarbert Harbour. A £500,000 award from the Coastal Communities Fund is enabling the Tarbert Harbour Board of Trustees to provide these improved facilities to satisfy the need for extra berthing and to help grow the existing business. Separate funding is still being sourced for the larger harbour development project, which also includes new shower and toilet facilities and a visitor reception and heritage centre.

#### **NORTH EAST**



An artist's impression of the new lifeboat station at Bridlington

#### LIFEBOAT STATION PLANS

Plans for a £3million RNLI lifeboat station in Bridlington have been approved by East Riding of Yorkshire Council.

The new building on Spa Promenade will replace the charity's current lifeboat station on South Marine Drive, which has operated since 1903 and is now too cramped for the RNLI's needs. Work is expected to start later this year.

Facilities will include modern training and changing rooms for

the volunteer crew, a mechanic's workshop, a shop and a lifeboat viewing area for the public.

#### **SEAHAM IMPROVEMENTS**

Improved boatyard facilities with 23 extra berths will be built in Seaham Harbour Marina as the result of a £1.7million grant from the Coastal Communities Fund. The grant will also allow servicing of the pontoons, the acquisition of a new boat hoist capable of lifting larger craft, and the creation of a new water sports centre on the beach.

#### **EAST**

#### **NORFOLK HARBOUR PLANS**

Plans have been put forward to reopen the harbour at Cley next the Sea in Norfolk. The Old Cley Harbour Project has been given planning permission to dredge the harbour and channel to provide access to the sea via the River Glaven. The £20,000 project will see the river widened from less than 7ft to more than 26ft at high water.

#### **SOUTH-EAST**

#### **DEPTFORD CREEK ACCESS**

Access to Deptford Creek on the Thames is now controlled by a new swing bridge which has been installed across the creek entrance. The 44m-span, cable-stayed footbridge, the

second of its kind in the UK, has been handed over to the Royal Borough of Greenwich, which will be responsible for its operation and upkeep.

#### INLAND

#### **NEW SAFETY BOAT**

A Gloucestershire-based rescue charity has been given its 'biggest ever' grant. The Severn Area Rescue Association is being awarded £221,000 from the Department for Transport, which it will use to replace its largest craft at its Beachley lifeboat station. A charity spokesman said: 'The grant will allow us to replace SARA Lifeboat 1 and purchase new dry suits, waterproof gloves, helmets and lifejackets for crews across all our stations.'

## Next month

#### **PRACTICAL**



#### **Engine repairs**

■ We try to start *Hantu Biru*'s secondhand diesel engine for the first time

#### Plus

- Instrument pod from Plastikard
- Budget Fireball dinghy restoration
- Making a steering quadrant

#### **TESTED**

#### Lifejackets on test

■ We test 17 of the latest inflatable lifejacket models

#### Freshwater hoses

■ Lazarette-friendly hoses on test

#### **BOATS**

#### **Robin Knox-Johnston**

■ The renowned sailing ambassador reminisces about a life on the water

#### **New RTC-22 tested**

#### **SEAMANSHIP**

#### **Grounded on a sandbank**

■ A novice sailor's testing day-sail

#### Going Round the Island

■ Tips for first-time racers

#### Reusing old sails and bags

■ Don't chuck those old sails! How to make parbuckles and drogues

#### **CRUISING**

#### **Fécamp**

■ Visiting this Normandy fishing port

#### **Fairey to Croatia**

Trailer-sailing a classic

#### **PLUS**

- Beaulieu Boatjumble preview
- HMS Victory, 250 years after launch

#### MAY ISSUE ON SALE THURSDAY MARCH 26



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or write to us at the address on page 5. Photos are appreciated, letters may be edited.

#### **Readers share their thoughts and opinions**

#### **TIDAL ENERGY CENTRES**

#### **Get in the queue**

■ Re News (PBO March), I was interested to read that the 'world's first tidal energy centre' was being proposed off the Isle of Wight. I'm afraid that here in Orkney we have had one for quite some time: the European Marine Energy Centre, EMEC (www.emec.org.uk). I feel it is not correct for Perpetuus to claim the title of 'first'.

Mark Shiner Department of Maritime Studies, Orkney College

## Tide for first place

■ Your headline regarding 'the world's first tidal energy centre' will raise a few eyebrows in Orkney: sailors here have been bypassing EMEC's grid-connected tidal test site at the Fall of Warness, just west of the island of Eday, since 2008. So far there have been more



grid-connected tidal energy devices tested in Orkney than at any other single location in the world. The site was chosen as the tidal currents can reach up to 8 knots at spring tides, so if a device can work there it should work anywhere.

Alistair MacKenzie Orphir, Orkney Laura Hodgetts replies: We contacted PTEC, who explained that Perpetuus is the first centre designed to allow commercial demonstration of different tidal arrays with consents, grid connection and a revenue mechanism already in place. It is not, as you correctly point out, the first tidal energy centre.

#### **Shrewd sealing**

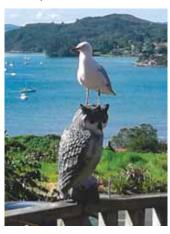
■ Reader Greg Manning's piece 'Socket to 'em' (Practical projects, PBO March) gives very sound advice. Whenever using silicone sealant, I've found that it's better to leave the final tightening of any object to which it's applied until after the silicone 'skins over' – particularly on hatches and windows, etc. This way, you don't squeeze out too much sealant initially, and by finally nipping up the screws or fasteners when it's part-cured it acts more like a ready-made seal.

Terry McDonald-Dorman Darlington

#### **Gull scarer rated**

■ This picture was taken in North Island, New Zealand. Could this be the ultimate indignity?

Andrew Morton Dollar, Scotland



## Water ballast: a finger tip

■ Re Peter K Poland's article 'Spoiled for choice' (PBO March), I recently bought a second-hand MacGregor 26M, the last incarnation before Roger – the designer and founder of the eponymous company – retired and handed over the reins to his daughter. She has renamed the company Tattoo Yachts and now manufactures boats under that name.

Peter expressed some concerns about the water ballast on the MacGregor 26: I can't comment on previous models, but on mine there is an air vent with a plug under the V berth cushion in the forward cabin and a gate valve on the transom. When filling, open both. It is easy to check the ballast by dipping your finger down the plughole in the air vent. If it comes out wet, then the ballast tank is full. Simples! But don't forget to put the plug back in and close the gate valve.

Checking the ballast should be part of your regular checks before

setting off. You can, of course, shine a light down the plughole and keep your finger dry, especially if, as in my case, the ballast is full of Thames water.

The very active MacGregor owners association can be found at: www.macgregorowners.org.uk.

Many thanks for a great magazine, full of interesting and informative articles, projects and sound advice. I've been finding your articles on trailer hubs and snuffers particularly helpful!

Simon Armitage, by email

## Robson and Gironde

■ Re 'Sail like a local' (PBO March), I use some of the older publications mentioned, especially when sailing on the French coast. Malcolm Robson's series on the Channel Islands and French coast, published around 1979, has fine sketches of local features: one volume covers the Channel Islands and four cover Omonville to the Gironde.

David Atkinson
DAISI, Southsea Marina

#### **Paws for thought**

■ I always enjoying seeing the pooches on your letters page, and it has prompted me to consider taking my Border terrier Poppy on a wee jolly to keep me company. I wondered if PBO readers had any top tips for taking dogs on boats?

In most cases the dogs are pictured wearing doggy harnesses or flotation jackets, but is there any advice on tethering/lifelines? My dog is fairly calm, but she does like the water and might decide to chase the odd gull!

On this point, does anyone have any tips for recovery of the pooch in a dog overboard situation? I'm certain Poppy would end up swimming in circles!

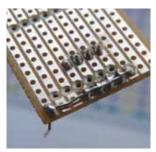
Martin D Wheeler, Ayrshire



#### **ANCHOR LIGHT SENSOR**

## Them's the breaks...

■ Re 'How to make a dusk to dawn anchor light sensor' (PBO Feb), I spotted a difference between the layout diagram and the photograph at item 3. The diagram shows a break across five strips, while the picture shows a break across six strips. Presumably this will have a fundamental effect on



The break across six strips, as in this photo, is correct

the outcome? Otherwise, this looks like a great project, and will save me getting up in the early hours of the morning to switch off the anchor light to save a few amp-hours!

Steve Ritchie, Aberdeen

David Berry replies: Hi Steve, yes, there should be six track breaks near the board edge, starting at the chip number 1 pin and stopping at the ground track, so the photo is correct: many apologies for missing it.

#### Ohm truths

■ Re 'How to make a dusk to dawn anchor light sensor', in the parts list there is a reference to a resistor R6 as being 1k0 (brown black red). Can you please advise what the final 0 means after the 1k?

Richard Berney, by email

David Berry replies: 1k0 is an engineer's way of writing 1.0k (1,000 ohms), presumably to ensure the decimal point doesn't get lost. So 4.7k (4,700 ohms) would be written as 4k7, for example.

#### Get the LED out

■ I'm sure I could build a dawn to dusk anchor light sensor from David Berry's instructions, and I'm also sure it would work perfectly. However, about a year ago, on the advice of my doctor (the Commodore of Lochcarron Sailing Club), I contacted the specialist lighting company Bedazzled: they sold me LED bulbs with sensors and voltage overload protection, which I am told others do not offer. They cost only £15 each and have kept working faultlessly.

My problem with LEDs in the past has always been initial cost and limited life on a 24V system, but Bedazzled seem to have overcome both those aspects.

David Johnson Strathcarron, Ross-shire

## I'll see your 26 and raise you

■ In David Harding's report on the Frances 26 (PBO March) he had one issue with these great little boats, the view forward from the helming sitting position. With my Victoria 26 Vagabond I came up with a solution which increases sailing pleasure and improves the comfort and space for fellow crew members, even in harbour when sitting with friends. A few strips of hardwood and maybe a comfy cushion will dramatically improve your sailing experience.

Alan Taylor, by email



■ See page 88 for reader Mike Hall's report on downsizing to a Frances 26

## SEADOG(S) OF THE MONTH



Here are our whippets Oscar and Daisy enjoying a cruise on our Sealine S29 on Lake Windermere.

**Emma and Stephen Slater** 

## Seadog



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of the Month and win you £30

## PBO PUZZLE 187

In the Admiralty Manual of Seamanship 1937, Vol. 1, Thomas Gray's well-known mnemonic regarding the rules applying when power-driven vessels find themselves in a collision situation is supplemented by the following verses, written by an unknown naval officer:

Now those four Rules, we all must note, Are no use in a Sailing Boat.
As we're dependent on the Wind Another set of Rules we find.

1. A 'close-hauled' ship you'll never see Give way to one that's 'running free.' It's easier running free to steer And that's the reason she keeps clear.

2. With wind the same side, running free, One's to Windward, one's to Lee.
The Leeward ship goes straight ahead, The other alters course instead.

- 3. Both 'close-hauled' or both quite 'free' On different tacks, we all agree, The ship that has the wind to Port Must keep well clear, is what we're taught.
- **4.** At other times the altering craft Is that which has the wind right aft.

These relate to the articles as enshrined at the first international maritime conference, held in Washington DC in 1889 and still valid at the time. These were altered in the Collision Regulations of 1960, which formed the basis for the International Regulations for the Prevention of Collisions at Sea 1972, now in current use. Of the verses above, which are incorrect today?

■ Find the solution at the bottom of page 122

### Parting the clouds

■ Re 'Deal with a milky sprayhood' (Ask the experts, PBO Feb and Letters, PBO March), I'd suggest trying Armor All Protectant. I've used this on the back window of my Austin-Healey 3000 and it works wonders. There's no rubbing involved: simply spread the liquid with a soft cloth and the cloudiness disappears. I've no idea how long it will last in a marine environment, but the last time I treated the Healey's back window was 3-4 years ago and it's still perfectly clear. I'll admit that there's a difference between a garaged car and a boat that's out in all weathers, but it's still well worth a try.

Peter Rutledge, Wicken, S. Northants

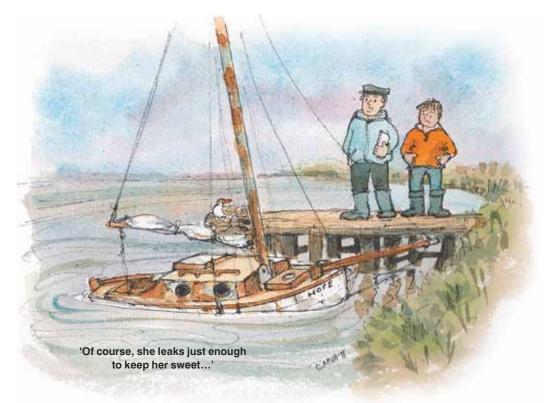




## Dave Selby

Mad about the boat

Dave Selby is the proud owner of a 5.48m (18ft) Sailfish, which he keeps on a swinging mooring on the picturesque Blackwater estuary in Essex



## **Planks for the memories**

Issuing a bewildered salute to those splinter group members for whom leaky wooden boats seem to exercise an irresistible appeal

here's no doubt traditional boatbuilding skills are dying out in Maldon, as hardly any of the yards are now making vessels from the tried and trusted materials of leather and goose fat.

These days, our marshland town is awash with boats built from a new-fangled material called wood. It's a technology that's in its infancy, which is perhaps why quite a few of these tree-fibre craft are awash: at least, that is, the ones that haven't sunk. Most of the others are either ashore with the wind whistling through their planking, or lashed to pontoons on life-support machines in local boatyards, where the air resonates with the rhythmic, syncopated gurgling and wheezing symphony of the bilgepump orchestra.

How wood floats anyone's boat is beyond me. I mean, on an average carvel 23-footer you'll have 600ft of seams sealed with nothing more than cotton and putty, all held together by about 4,900 copper rivets, each one roved by hand with an individual oath to around 40 frames. How does anyone expect that to float? I just don't see it catching on, but nevertheless there's a band of hardcore new-age fundamentalists who persist.

The proudest achievement of legendary local yacht broker Mike Lewis, who made his first fortune selling clothes pegs to gypsies, is that he once sold a wooden boat while it was sunk. He reasoned to the prospective buyer: 'The last thing you want is for a wooden boat to dry out,' and that clinched the deal.

The thing is, wooden-boat buyers don't think like the rest

of us. When a mate tried to sell his immaculately-maintained teak-planked 25-footer at a giveaway price, he didn't get a nibble for months. What wooden-boat buyers really want is dereliction, but not at any price. I know from personal experience that if you try to give a wooden boat away for nothing, no one's interested.

In the yard where I keep my Sailfish 18, which is built of traditional materials - glassfibre and osmosis - there languished for many years a sweet but sadly neglected 1936 Johnson and Jago 21/2-tonner called Dzoh Bah. At first, yard owner John offered it for nothing, then issued the ultimatum that it would be broken up unless someone took it on. That, and threatening to burn boats, normally works with wood worriers, but still no one came forward. In what I took to be an act of compassion he craned

it over the wall to lay alongside in the mud on the public hard, where as the tide twice-daily washed through her gaping planking, passers-by – myself included – began to pause as they walked by and started taking a casual interest in this forlorn relic that added a touch more ambience to our historic waterside town.

#### A bid for freedom

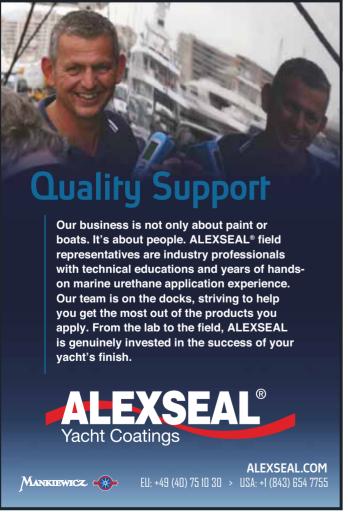
Then one day, as I walked by with Bart, he barked to grab my attention. What the little mutt had noticed was that *Dzoh Bah* had lifted a little and was coming back to life as the daily wash of Bisto-gravy-thick brown muddy water had swelled her planking and caulked her once-gaping seams.

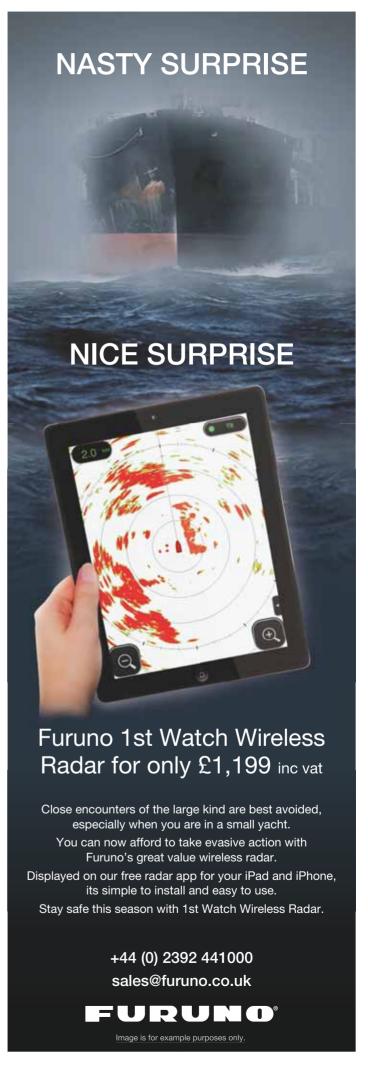
More than that, as no one had thought to tie her up, she was drifting away from the sea wall and making a bid for freedom, to return once more to her natural element. I grabbed a scrap of frayed rope and managed to secure her just before she floated beyond my reach. That strand of polyester had made an umbilical link between Dzoh Bah and me. I had to do something, but what? These wooden boats are a knotty problem. No one wanted her when she was free, or under threat of being broken up.

What she needed was a price, said yard boss John – who is so enamoured with boats that he owns a motorhome. And that did the trick. Someone came forward, gave him the £100 asking price, and now Dzoh Bah's back in the yard, once more paying fees and being fitted out with all manner of gear bought from the chandlery, which John also happens to own. Wood you believe it? I reckon if anyone understands the mind of the wooden-boat owner it must be John, which is probably why he also owns an Aston Martin: it's got beautiful wood veneers.











## Sam Llewellyn

Flotsam and jetsam

Sam Llewellyn is editor of The Marine Quarterly, www.marinequarterly.com. and author of nautical thrillers. Three years ago he bought a Corribee on eBay

## A puff piece for becalmed boaters

Six salutary suggestions to help you propel a sailing boat when the wind has gone to bed

he pundits say that in the worlds of war, cricket and politics, the participants are usually preparing for last time around. There is no reason for sailing to be any different. Most times when we got out of the harbour last year, the wind went to bed. Mighty ocean greyhounds ploughed through the heat-haze, ancient engines enveloping the cash customers on the counter in evil greenish fumes. Motor-sailers motored past, fulfilling their destiny, and mostly motoring a lot better than they sailed.

If you have got a Corribee, though, you need to feel smug about something, and it sure as hell is not going to be the internal volume, the walk-in freezer, or the exquisite joinery of the cockpit brightwork. What it comes down to, in the end, is that this is a boat that sails. So the smugness focused on a campaign to be as engineless as was consistent with safety and reaching our destination before closing time.

This led to our spending much time moving very slowly across enormous sheets of

water. Some of this time was filled with meditations on nil-wind locomotion strategies. In ascending order of efficiency, they came out as follows:

1. Sculling. This is the figure-of-eight waggle of the oar in a central notch in the transom that was once popular in British harbours. Sculling races were a feature of most

regattas and were particularly popular with children, as sculling involves standing up in a boat at an age where grown-ups tend to be screaming at you to sit down. Sculling is now seen mostly in France, as the tinies of Britain are in tenders with 2hp outboards, curse them.

**2.** The yuloh. This is very like sculling, but conducted with a longer oar whose blade is set at about 11° - all right, 13° all right, I have not got the faintest idea, but not much of an angle - to the loom, pivoted on a ball joint on the transom, the inboard part secured to the thwart or keelson with a lanyard. Tiny Chinese grannies can be seen propelling 10-ton sampans across Hong Kong's Aberdeen Harbour with the vuloh while cooking lunch with the other hand. Or could, until the Chinese started making outboards of their own.

3. Towing. We will not here go into towing with engines, except to say that on flat water side by side is infinitely preferable to line ahead, as the tower can pour the towee

Inflatable rowlocks are bowlocks. In

these times you are expected to motor

patronising drinks and the



Sculling, 'the figure-of-eight waggle of the oar in a central notch in the transom that was once popular in British harbours'

**4. Rowing.** Sally Kettle rowed across the Atlantic with her Mum. Three Peaks Racers have been known to bolt sliding seats on to their boats so they can grunt-and-groan their way through the Menai Strait against the tide. And very occasionally, you will see someone climb out of a yacht

and into a dinghy and row to the pub. Inflatable rowlocks are bowlocks, though. In these times you are

expected to motor. So motor.

**5. Engines.** We will leave electric outboards off the list for the moment, as charging them while cruising sounds like a bit of a rigmarole (I speak from the standpoint of someone who has never used one, ie total ignorance). An outboard in a well is okay, but noisy. An inboard with saildrive is also okay, unless like me you have developed an allergy to jamming your head between a hot sump and a cold boat's side while you get three flavours of cramp trying to get the cover off the ruddy water pump in which the impeller has gone to rubber crumbs. Best to put the outboard inboard, not to put the inboard outboard, as the lost verses of Hiawatha tell us so usefully.

6. Cabalism. Prayers to St Warna, the patron saint of wreckers, seldom go unanswered, though the answer may not be much fun. Larger boats may carry a Finnish carpenter, who will use a couple of twigs and a rat's skull to make the equinox arrive several months early. And of course there is whistling.

Basically, then, if the wind drops, blow a whistle. If time is that important, get a jet ski. 🔞

#### towee can see if he can empty the tower's spirit locker as an act of revenge. Towing from a bank, whether it be river, canal or creek, is traditionally accomplished by attaching one

end of the towline to the top of a short towing mast and the other end to a horse. Do not attempt to carry your own horse unless your boat has a stable.







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## **Andrew Simpson**

**Monthly musings** 

Yacht surveyor and designer Andrew Simpson cruises with his wife Chele in his own-design 11.9m (39ft) yacht Shindig. Read his blog at www.offshore-sailor.com



The RYA VHF radio course: 'enlightening in its content and as a reminder of how quickly technology can leave us behind'

## **Received wisdom**

A VHF radio course confirms the value of refreshing one's knowledge base and keeping abreast of technology

orgive me for sounding selfsatisfied, but one of the bonuses of being a yachting journalist is being invited to attend training events in the role of observer. Amongst such opportunities this past winter, one saw me attending a VHF radio course, not as an actual candidate for the Short Range Certificate but certainly as an interested participant.

Let me say that I found it enlightening, both in its content and as a reminder of how quickly technology can leave us behind. Earlier generations had more time to adapt. For example, had an 18th century navigator spotted the sextant stowed in one of Shindig's lockers he would have known its purpose in an instant. Yes, the engineering and optics are now much better, but he would have seen

lots of similarities with the relatively crude instruments of his own era. Over two centuries development had certainly occurred, but only nudging forward in tiny increments.

Compare that with the VHF radio we have just replaced. When Shindig was launched, it was considered cutting edge. It would transmit and receive and do a few more tricks, but little else besides. We were entirely satisfied with it; yet 12 years later we decided it was time to upgrade, so we plundered the cruising fund and made our choice. Apart from a small screen, the replacement looked almost identical. It almost fitted into the same enclosure. Yet I knew that within its sleek, weatherproof enclosure all sorts of fantastic black arts resided - all of which had to be unpacked and tamed if the goodies contained were

to work their magic.

There was DSC and MMSI, for instance. The first stands for Digital Selective Calling a facility that allows your radio to transmit information digitally, not just by voice and the second stands for Maritime Mobile Service Identity, a nine-digit number which is a bit like a telephone number for boats and ships. But knowing what they are doesn't help with the actual doing. I know, for instance, what bagpipes are, but that doesn't mean I can play them. That calls for skills I don't have, meaning there are things to be learned. And therein lies a problem. Faced with such challenges, my thought processes typically dissolve into insubstantial mist and I slide into the same sort of panic responses that impel me to collar a nearby nine-year-old to steer me through the hidden mysteries of my tablet.

Unfortunately, my reaction to what I see as technological quicksands ahead is usually to pretend they are really not there. I told myself that behind that blinking screen with its array of buttons lurked a basic VHF radio, the workings of which I could associate. You're sinking or on fire? It's Mayday, Mayday, Mayday time. You want to talk to that ship bearing down on you? Shine a light on the sails and resort to Ch16.

#### **Downright perverse**

Now, of course, this is pure laziness. Having decided you can't live without those extra bells and whistles, it's downright perverse to turn your back on them. And, as is the nature of such things, procrastination plays its part. The first season slid by without me liberating those absent facilities. Frankly, we lapsed into old habits and didn't miss them. It was just as before, but with a somewhat more decorative radio.

They say that fortune favours the brave, but the truth is, it turns out, also occasionally the indolent. It was certainly fortunate for me that both Chele and I were invited to sit in on a scheduled RYA VHF radio course. Along with students working towards the appropriate certificate, we would spend a few hours fiddling with functional (but in broadcasting terms mute) educational radios, and trawling through the vocal formalities that reduce misunderstandings over the air.

Most of it was very familiar territory to us, but light was shone into corners that had been discouragingly dark including the murky world of DSC and MMSI. The genies are out of the bottle. So, my thanks to the good folk who run that course. As I wandered off, I pondered on the fact that there must be many old-timers like me who have done more hours than they can count but now find themselves floundering in the wake of modern developments. Brief refresher courses, maybe?

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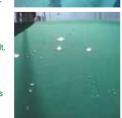
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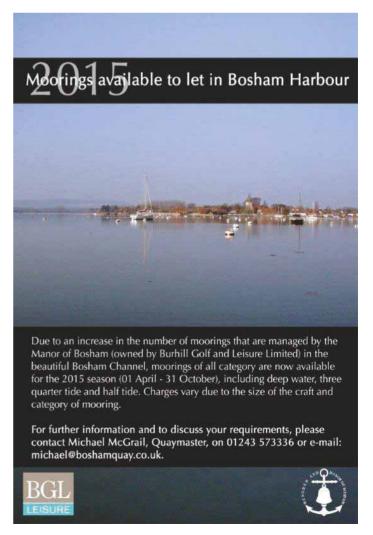
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The PBO Project Boat's electrical installation is finally completed with the addition of a steaming light, an LED tricolour light and a VHF aerial to the mast. Ben Meakins reports

ith the PBO Project Boat's electrical system and instruments installed, all that remained to finish off the electrical installation on board was to wire up the mast. This was also the bit we were looking forward to the least...

We had considered doing this with a bosun's chair while the boat was on the water and in the mad rush before we took the boat to the Southampton Boat Show in September last year, but with discretion being the better part of valour we quickly realised it would be much more sensible to do it ashore in the winter. So, with *Hantu Biru* back ashore, we lifted the mast from the boat as the puddles began to freeze in early January and set to work.

We decided to add the following equipment: a steaming light, which sits just above the spinnaker pole uphaul block halfway up the mast, an LED tricolour light at the masthead, and a VHF aerial. The mast is a hollow aluminium spar with external halyards, which means that we could thread the wires through the centre of the mast without having to worry about fouling any internal halyards. Speccing the cables for the LED tricolour and steaming light, we bought tinned two-core cable online from ASAP Supplies who delivered it next day. That left no excuse but to get on with the job!

## The VHF antenna

Our VHF, mounted below decks, was as yet useless without its antenna, so we bought a V-Tronix whip antenna to fit to the mast. We considered using a 'stubby' helicoil antenna to save space at the masthead, but our tests in PBO October 2012 showed these to really suffer in performance. As we hope to cross the Channel in the boat, we opted for the bigger whip option.

This came with an offset crane bracket which could be screwed to the side of the mast. We used M5 machine screws, adding a thread to their holes with an M5 tap. The cable, with the tricolour cable, could then be taken inside the mast via a 10mm hole in the mounting bracket and mast wall. It has a brass 'bullet connector' on the end which screws into the base of the antenna.





### The steaming light

We dug through the shelves of our local chandlery, Piplers of Poole, to see what we could find. We wanted a compact, unobtrusive light that wouldn't snag too many halyards and sails, and found an Osculati steaming light which was small, unobtrusive and cheap.

Back at the boat, we looked at the installation. To make the light fit the curved leading edge of the mast we'd need a bracket. We reused a piece of 1mm stainless steel which had previously been part of a very over-engineered lifebuoy bracket and shaped it in a vice, using a lump hammer to press in 90° bends to take the bracket to the front edge of the mast, and then the vice and a wooden bung to shape the lugs to

the mast's profile. This done, we could drill the bracket to take the light itself, not forgetting a larger hole to take the wire through the back of the light

and into the mast. We removed the short, thin wires that came with the light, instead soldering our tinned two-core cable straight to the light's terminals.

Finally, all that remained was to drill the cable hole in the mast and mount the bracket. We drilled the cable hole before smoothing it with a rat-tail file, then used 4mm pop-rivets to secure the bracket to the mast.



LEFT Our small steaming light bolted to the bracket, which we made from 1mm stainless steel recycled from an old fitting

**BELOW** The light sits above the pole uphaul fitting, with the bracket pop-riveted to the mast



## Fitting the tricolour light

e decided to install an LED tricolour light at the masthead. We opted to do this for a number of reasons. Firstly, it should make us more visible to larger craft, ie ships, at sea. It gives us a level of redundancy should the deck-level lights fail, and as the deck-level lights are mounted on the cabin sides, they can be obscured by sails and crew. Having the option to use a tricolour under sail and the deck-level lights and steaming light under power should ensure we're as visible as possible!

We chose NASA Marine's Supernova LED tricolour. This came out well in our test of lights and is reasonably priced at £55. It also looked as though

it would mount well on our skinny masthead crane, avoiding the Windex mounted at the aft end. NASA supplies an L-shaped aluminium plate with a nylon clamp block which bolts to it. We discarded the plate and decided to mount the light atop the masthead crane. The problem was that the crane has two sheaves for the main halyard, so fixing options were limited. We

got around the problem by



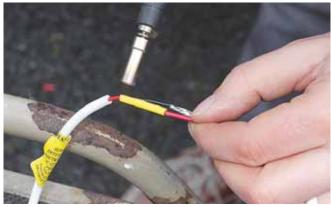
making two stainless plates which bolted each side of the nylon clamp block and which tapered at their lower end so they could be bolted through the masthead

crane between the two sheaves. The bottom of the nylon block rests on the top of the crane, which stops any fore-and-aft and lateral movement. This done, we could run the wire down the same hole as used by the VHF antenna, after soldering our new cable to the short stub wired to the tricolour.





We modified NASA's bracket to fit over the top of the masthead crane, bolting through between the internal sheaves



We soldered the tricolour's wire to that which would run down the mast, using heatshrink to insulate, support and protect the joins



**Pulling the cables through** 

With the mast hardware installed, we had to bite the bullet and thread the cables through. After some trial and error, we settled on a method which worked well.

At the front of the mast at deck level were three old rivet holes which used to hold large v-cleats that we removed when refurbishing the mast. We drilled these out and used them to lead the cables through.

You have a few options when it comes to wiring a mast. One is to use a mouse line, usually 3mm braided line, with a weight on the end. However, this relies on gravity to pull it

> down the mast, which is fine if the mast is raised - but with ours near-horizontal on the ground, we found it to be a non-starter.

Our method involved the use of a steel fish tape. Favoured by electricians, these are available for around £10 online, and consist of a 15m-long thin strip of spring steel on a cassette. We could post this down the mast, having

first measured the distance between the holes and marked it on the tape. With enough pushed through, we could then turn the mast upside down and attempt to fish for the end. We eventually found that with a combination of a torch, pliers and a home-made hook (made from a piece of spring steel with a hook bent in the end), we could locate the end of the fish tape and extract it from the hole.

This done, we bent the fish tape back on itself to form a hook, which could then be pushed through the relevant wire and secured with a thin wrap of tape before being carefully pulled through. We started with the steaming light and this method worked well, with no issues.

However, the masthead needed two wires. We



By using a steel fish tape, we found installing wires inside Hantu Biru's mast to be surprisingly simple

used the same technique, but instead of pulling a wire through at this stage, we first pulled through two separate mouse lines. At the mast base we then used the hook to pull each of the mouse lines through its own hole. With two lines now in the mast, we could pull our wires through one at a time. We found that we had to sew the mouse lines to the tricolour's wire with

whipping twine for it to fit through the hole we'd drilled. The VHF cable was less flexible, and we found that the best way was to expose a length of the cable's core and tie a loop in it, securing it by soldering the join. We could then tie the mouse line to this and pull the whole thing through. This done, we added grommets to the holes where the wires exit the mast.



We pushed the fish tape into the cable exit hole, sliding it up the inside of the mast until...



The masthead needs two wires, so we tied two mouse lines to the tape and pulled through



...it could be retrieved at the masthead with the aid of a pair of pliers and a spring steel hook



We then soldered a loop in the end of the VHF antenna cable to which we tied the mouse line..



We could then push the fish tape through a hole in our cable, tape it up and pull it back through



...before using them to pull the wires through, installing rubber grommets to protect the wires



## **Below decks**

All that remained was to take the cables through the deck and wire them in. As the mast is unstepped for towing, we need to be able to unplug the wires as easily as possible, so we settled on using three separate deck glands and a home-made junction box

#### **Deck glands**

We bought three single chromed deck glands from the chandlery, and installed them between the tabernacle and the forehatch,



where they will be protected from flogging sails and feet. This means that the wires come through the deckhead in the forepeak, where they can be easily concealed. We could have used one large deck gland, but have previously found that these are more likely to leak – and require a much bigger hole in the deck!



## The junction box

We placed our junction box adjacent to the main bulkhead and just aft of the deck glands. This means that the wires can be unplugged with minimum re-routing whenever the mast needs to come down.

Having chosen to use small, circular deck glands, we needed connectors that would pass through them. At Maplin we found some 2mm plugs for the nav light cables which would fit 6mm glands. For the VHF cable we decided to use an SMA connector, which can pass through an 8mm gland. While less common than the larger PL259 plug it's actually more efficient (it can pass signals up to 18GHz compared with 300MHz for the PL259), but has the drawback that a crimp tool is needed to fit it.



We placed our junction box just aft of the deck glands on the forepeak's deckhead. The mast wiring will plug straight into its sockets (inset)

You need to carefully check that you buy one with the same impedance as the cable – we needed a  $50\Omega$  connector.

We wired our four navigation light sockets, placed in pairs, one for each light, and a bulkhead SMA fitting into the side of a small plastic project box. This we screwed to the deckhead, with the wires running out of the port side of the box. The mast wires will come through the deck and plug straight into the junction box – and we'll keep them corrosion-free with a coating of Lanoguard.

We chose an

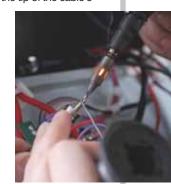
**SMA** connector

### **Panel wiring**

With the cables entering the locker, we wired the navigation lights into our switch panel (see PBO January 2015). The VHF antenna could be wired into the back of the radio with a PL259 plug (you can see how to do this online at www.pbo.co.uk/pl259), soldering the tip of the cable's

core to the plug once the body was well screwed down.

With the mast wiring done, we could finally fully commission our VHF radio. This required a GPS fix for the DSC component to work (see PBO Feb 2015) – and we bought a cheap Garmin antenna from



Soldering the PL259 plug for the VHF completed the job

eBay. This could be wired into the NMEA input wires of the VHF, with two wires running to the power supply of the VHF. This gives us position data independent of our Raymarine chart plotter, which can thus be switched off to save power without compromising the VHF – although the main reason for our solution was that to link it to the plotter would require a £120 converter! We mounted the antenna to the underneath of the deckhead at the top of the locker with industrial-strength Velcro.



This Garmin antenna from eBay is linked to the VHF, giving it a DSC position



#### **Wiring runs**

From the new junction box, the wires run across the boat's bulkhead and into the cubbyhole lockers on the port side of the cabin. We ran these back to the locker which holds the switch panels under the deck, using nylon cable tidies threaded onto the overlong bolt ends of the jib tracks. We used a nylon mesh, akin to a Chinese finger trap, to tidy these and keep them together on their run aft.



### **Commissioning the radio**

All that remained was to program in our MMSI number. First, we needed to register for a ship's radio licence. This was free on the Ofcom website (http://licensing.ofcom.org.uk/radiocommunication-licences/ships-radio) and gave *Hantu Biru* a MMSI number, a call sign and, most importantly, the right to use VHF radio. Entering the MMSI number was slightly nerve-racking – you have to enter it twice, and if you get it wrong you must return the radio to a dealer to be reset – but once done the radio was fully-functioning.

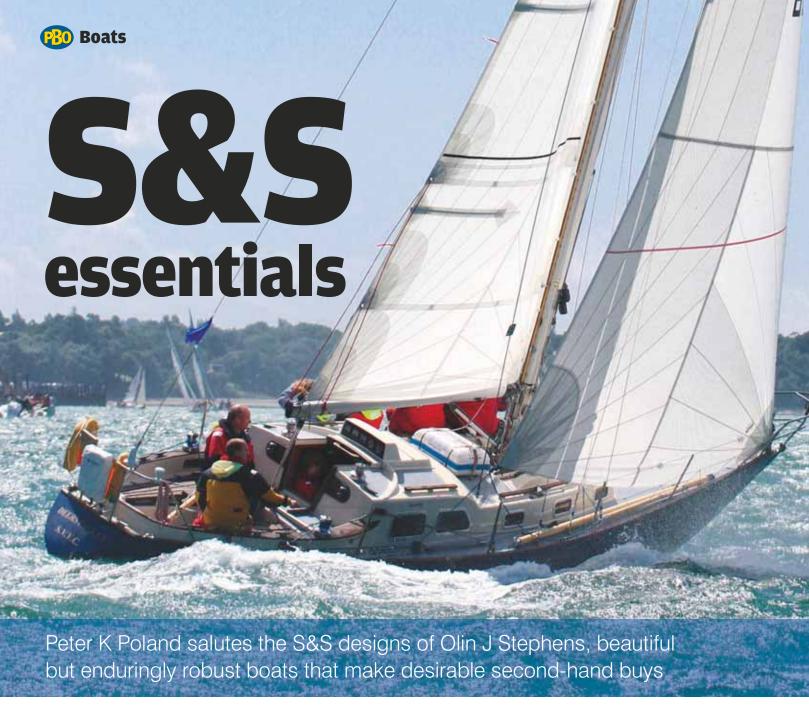
To finish off the installation we had an engraved plaque made up online

at Timpson's, stating the boat name, call sign and MMSI number, which are now to hand by the radio. Our MMSI is 235107385 – give us a DSC call if you see us on the water!

#### **NEXT MONTH**

We try to start *Hantu Biru*'s second-hand inboard diesel engine for the first time.





ertain objects have a mythic allure, an intangible 'je ne sais quoi' that lifts them above the ordinary or the adequate and into the realms of the special. Quality is at the core of this magic pull, as are looks: but there's more to 'it' than that. It's indefinable and can't be planned or copied, so most things just don't 'have it'. But a few – just a very special few – do.

In the world of yachts and yacht design, there was one genius who sprinkled stardust on beautiful boats. As a result, large numbers of his creations had 'it' in spades, and – luckily for today's sailors – several were series-produced in GRP, so owning and enjoying one of these beauties is still viable.

I hesitate to use the hackneyed adjectives 'iconic' or 'classic' when describing these boats because they rise above that. One of my friends has been the guardian of such a boat for 27 years, and he tells me: 'I'm still in love with the glassfibre wife, and wouldn't change her. I can sail single-handed, shorthanded or with four friends: and above all, she gives me that goanywhere confidence.'

His boat is as beautiful today as she was nearly 40 years ago – indeed more so when compared to the newer, short-ended, plumb-stemmed blobs that now surround her – and is just one among the many designed by the inimitable Olin J Stephens. The S&S (Sparkman and Stephens) tag is carried by more than 2,200 racing and cruising yacht designs including six successful America's Cup defenders.

#### Six-decade domination

The Stephens brothers, Olin and Rod, made their mark in 1931 when they designed the 52ft yawl *Dorade* and raced her in the Transatlantic Race. As they passed the Scillies they signalled the coastguard station, asking: 'Which am I?' 'You are first,' came the reply – a message that was to be repeated ad nauseam down the years. It marked the start of an unprecedented six-decade

domination of offshore and inshore racing by S&S boats on both sides of the Atlantic.

Olin James Stephens II lived from 1908 to 2008. He studied naval architecture at the Massachusetts Institute of Technology in 1926 then took an apprenticeship at the Henry Nevins boatyard on City Island. He was just 23 when he completed the lines of the divine *Dorade*, his Design No7. While Olin drew the yachts with his unique blend of artistry and science, brother Rod applied his seaman's eye to their layout, construction and fit-out.

In 1937, Starling Burgess invited Olin Stephens to help design the J Class yacht Ranger, the New York Yacht Club's America's Cup defender. Ranger walked all over Sir Tommy Sopwith's challenger Endeavour II. Although the design was a collaborative effort, Ranger benefited greatly from

#### **ABOUT THE AUTHOR**

Peter K Poland crossed the Atlantic in a 7.6m (25ft) Wind Elf in 1968 and later spent 30 years as co-owner of Hunter Boats. He is now a freelance journalist.







Olin and Rod Stephens made their mark in 1931 when they designed the 52ft yawl Dorade, above, to compete in the Transatlantic Race - which she won



Yacht broker Drake Sparkman, left, and designer Olin Stephens, right

studies that Stephens carried out at the Stevens Institute in New Jersey, doing tank testing work that later became the norm for his America's Cup and offshore racing yachts.

When post-war America's Cup racing resumed in 1958, the 12 Metre Class replaced the J and Stephens ruled the roost. Columbia and Constellation defeated the 1958 and 1964 British challengers Sceptre and Sovereign. I remember the latter well because my grandfather Kenneth Poland then Vice Commodore of the RTYC - was in charge of the challenge. He later told me he knew the game was up before the first race even started because the only compliment the NYYC committee could find to say about Sovereign was that she was 'beautifully built.'

Stephens then developed Intrepid for the 1967 match, and many believe this was his finest 12 - the stroke of genius that affected all future racing yacht designs. By splitting the functions of keel and rudder and dividing its underbody into a keel to carry the ballast and a separate rudder to steer, he produced an invincibly speedy and nimble yacht. His final 12 Metre Freedom's domination in 1980 marked Stephens' retirement and his record of six America's Cup winners, overhauling Nat Herreshoff's five.

In addition to America's Cup work, Stephens was a prolific designer of day boats, such as the Lightning and Blue Jay classes; but these never spread across the Atlantic. However, his cruiser-racers definitely did, dominating the Admiral's Cup, RORC series, Fastnet, Sydney-Hobart et al races for decades. When Ted Heath met him at the London Boat Show, it is said that

Stephens modestly assured him he would find the GRP production S&S 34 Class 'satisfactory'. Heath went on to win pots galore including the Sydney-Hobart - in this, his first S&S Morning Cloud.

#### Joy to behold

Today's sailors tempted by S&S quality and class have a choice of GRP production cruiser-racers that range from the pretty She models up to the glorious Swan 76. Irrespective of size, they have two things in common: they look a million dollars and sail superbly.

In his autobiography All This and Sailing Too, Stephens wrote: 'I was lucky. I had a goal. As far back as I can remember all I wanted to do was to design fast boats.' To generalise, this meant cruiser-racers with relatively wide maximum beam, fine graceful overhangs, glorious sweeping sheer, topside tumblehome, displacement-producing bustles blending into rudder skegs and plenty of ballast packed into keels invariably made of lead. All of which adds up to superb balance, speed, stability and closewindedness under sail.

One key ingredient can be summed up in a single word: lead. When I started building the speedy Hunter HB31, I asked designer Cees van Tongeren if we could save money and fit an iron keel. 'No way,' he exclaimed in horror. 'This is not a caravan yacht. The keel must be lead. Iron floats.' What? 'It displaces far more than lead of the same weight,' Cees explained, 'so compared to lead it "floats". It also has extra surface area for the same weight, increasing drag.'

The first S&S yacht I sailed was a South Hants Engineering-built She 31. Like its rarer small sister (the 27), this yacht is a joy to behold. Some compare her to the Contessa 32, but the sleeker She

31 is 0.21m narrower (2.69m), 0.6m shorter on the waterline (6.71m) and weighs 750kg less (3,538kg). With a similar ballast ratio, around 45%, and a higher SA/disp ratio, the She promises sharper performance while offering less space below. In her day, she and the similar Swedish IW31 were near unbeatable.

I recall a Round the Wight by night JOG race in the early '70s. After a high-speed Force 5-6 whizz down to the Needles we set the spinnaker for a run into the dark, then I went offwatch to my bunk, as one did in those days. We were leading the fleet. Around an hour later I awoke as a voice in the cockpit uttered the chilling words: 'Are those breakers ahead?' Crash! The skipper had run onto the inshore edge of the Atherfield Ledge (a rocky reef) and we were surrounded by white water breaking over black rocks, most of it between us and safe deep water offshore. In short, we were in a pretty pickle.

Sheeting the sails flat, we heeled the She 31 onto her side and bashed through the rocks until we reached the safety of open water. Then we reset the spinnaker and continued on our merry way. I wouldn't want to try the same trick on a modern flatbottomed hull with a bolt-on cast iron fin: I doubt that either boat or crew would survive.

Sleek beauty and fine overhangs combined with 31ft LOA won't provide space for stern cabins or aft heads compartments, even in roomier near-sister ships the She Traveller 9.5 (extra freeboard) or Delta 94. But how much time do you spend on the loo or under a shower? If these factors take priority over the iovous sensation of sailing a near-perfect yacht, a She is not for you. However, if practical



She 31: available second-hand from £9,950







accommodation and amidships amenities suffice, this boat is a joy.

#### 'If she looks right...'

Much the same applies to the **She C32**. The excellent S&S Association (www. sparkmanstephensuk.info) put me in touch with several enthusiastic owners including Bob Turner, who told me: 'Why did we buy her? S&S needs no elaboration: French boats of the day had no aesthetic appeal, and we subscribed to the view that "If she looks right..."

Bob and his son bought their She C32 in 1990, becoming her fourth owners. 'We had an extensive refitting programme,' Bob added, 'converting four of the eight berths to stowage space, fitting handholds on top and below the coachroof, grab handles inside and outside the hatch, rewiring etc. We changed from tiller to wheel, which has been a great success.

'The steering is fine; just the right amount of weather helm. We replaced the Yanmar 8 single-cylinder with a Perkins 20hp 3-cylinder, then replaced this last winter with a Yanmar 3YM20. I am invariably single-handed and that, combined with my age – 90

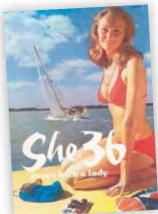
next year! – restricts me to local cruising, Poole to Chichester. I manage to get across to Cherbourg once or twice a year. Not exactly memorable, but very rewarding for an old 'un.

'Shekinah handles well in most conditions and, with the pronounced tumblehome, keeps her decks fairly dry. I only once had any serious amount of water in the cockpit. She heels fairly quickly for the first 10-15° but it takes a lot of puff to make her go much further: a lead keel with 5ft 6in draught is a contributory factor. Light airs are not her strong point.

'Other comments? They don't make 'em like this anymore!'

### Equally desirable

If you like the S&S recipe but want to go a bit bigger, the elegant Tyler-built **Deb 33** centreboarder and the **She 36** are equally desirable. Richard Burnett told me: 'Back in 1987 I was looking



A 1970s She 36 brochure, complete with a double entendre typical of its era

for a Contessa 32 until a broker told me that these attracted a premium and, for not much more, one could get a She 36.

'My then teenage son voted we spend Dad's dosh on a better boat rather than a bigger house, and told me, "Not only do you get a really good racing boat, but also a lifeboat!" He had in mind the '79 Fastnet when Alain Catherineau in his She 36 Lorelei rescued the crew of Griffin. Alain said you could ask the impossible of the boat, and he won the RCC Seamanship Medal that year.

'Additionally, I wanted a quick

boat for club racing and cruising. The 36 met this very well. By modern standards the accommodation is a bit cramped, but it's comfortable.

'Over the years we have cruised to south-west Ireland, Brittany, the Channel Islands, the South Coast, the Scillies and recently northern Spain. The overnight passage from Santander

to La Rochelle was especially memorable – it was clear, with the moon racing the clouds in a Force 4-5 just forward of the beam. With one reef in the main and a few rolls in the genoa, she was very comfortable and cracked on at a steady 7-plus knots, steered by "the vicar" the whole way.'

Richard concedes that IOR designs of the 1970s tended to broach when hard-pressed under spinnaker, adding; 'She's no exception and we've had some spectacular spills... But change down early to a boomed-out genoa, which reduces the centre of effort, and she's completely vice-free, trustworthy and predictable in heavy weather. She always inspires me with confidence in nasty conditions.'

When it comes to self-steering, Albatross has a Monitor windvane that works on the same principle as the Aries. Richard calls it 'the vicar' because it never drinks, smokes, swears, sleeps or eats while it 'guides our ship down the True Way'.

And what about maintenance and replacements on a 37-year-old boat? There's bound to be wear and tear, but Richard – along with other owners of S&S beauties 'of an age' – knows the expense is justified. Everyone





Sailing Scenes

#### Buying second-hand: S&S cruisers (130)





says 'they don't make 'em like this any more,' and just for once I agree. Chucking cash at a boat this special doesn't fall into the category of 'good money after bad'.

A year after buying Albatross, Richard changed from wheel to tiller steering, which doubled the lazarette size, made the cockpit bigger and life easier with windvane steering lines. He also altered the port-side saloon into a U-shaped dinette which folds down into a double bunk, with lockers, bookshelf, hi-fi etc outboard.

In 2005, replacement electronics went in, and in 2011 he fitted a new 30hp Beta engine and folding two-bladed prop. Over the years sheet winches were upgraded from 40s to 44s, replacement sails added (including a new-fangled FFR from One Sails that produces extra speed for less sweat than a spinnaker), an electric anchor winch and Eberspächer installed (in readiness for a prolonged campaign in Scotland) and new sprayhood, dodgers, tent and bimini fitted. Down below he has changed all 13 interior light bulbs to warm white LEDs... and so it goes on!

But as Richard says, 'She's a

super boat and I wouldn't change her - she sails like a witch, is a brilliant sea boat, comfortable below and a looker! She's just the right size - I single-hand with no qualms, but she has room for four which is easy and pleasant.'

He'll never want to replace his beloved She 36, so why not keep her up to date and up to scratch? She's worth it. If you fancy a slightly smaller

yacht along similar lines, the 1972 S&S 30, built by Aquafibre, is worth a look. Although slightly shorter than the She 31, the 30 has a longer LWL, more beam (9ft) and weighs more (9,000lb), so she also has a bit more room down below. And like the She. this attractive boat is a winner.

One owner, Martin Rush, told me; 'When retiring to southwest England I planned to spend as much time as possible cruising the nearby coasts, so we sought a yacht that would be fun to sail and had a good safety record. We selected Thirisia, an old S&S 30, which met our requirements perfectly - good pedigree, beautiful lines and the previous owner had maintained her immaculately.

'We had many wonderful cruises in Thirisia, perhaps the most memorable being the sail back from St Vaast to our home berth in July 2011. After rounding the Gavendest Rock outside St Vaast harbour we entered Portland harbour 12 hours later - 90 miles logged at 7.5 knots in a steady south-south-west Force 6.'

Martin's S&S 30 also participated in a couple of Round the Island races. In 2010, she finished second overall in the classic yacht class and would have won but for a short spell aground on Ryde Sands. Then in 2011 she finished 151st out of 1,908 starters in the ISC Open Class, completing the course in 10 hours 2 minutes - impressive for a 40-year-old.

Martin adds: 'Thirisia handles extremely well in all sea/wind conditions encountered. If any criticism could be made, she's a tad sluggish in light winds.

'The only major refit we had to undertake was replacing the chain plates. These had started to show corrosion, evidenced by slight deck swelling above the built-in anchorages.'

#### All-time great

Stepping up four feet, the **S&S** 34 is another all-time great with a big fan club. It was built in the UK, USA and Australia, and from the day Edward Heath became an owner the S&S 34's fame spread. Many examples built and based in Australia - distinguishable by their lower coachroof - have circled the globe, including Ella's Pink Lady, sailed by the remarkable Jessica Watson. When she finished her non-stop 23,000-mile solo circumnavigation in 210 days, Jessica was still only 16. You can read about it in her book True Spirit.

When I asked her 'why a 34?' she explained; 'The S&S 34 was the obvious choice for the voyage. I just couldn't ignore its amazing track record. I would have struggled sailing a bigger boat and I needed a boat that would comfortably handle multiple knockdowns. Also, it was really important to have a boat that could sail into above-30k wind and huge seas. Very few modern boats could do that.

'I have a huge amount of admiration for sailors who have undertaken similar vovages



The S&S 34 Ella's Pink Lady, sailed solo around the world by the remarkable Jessica Watson





#### 🚻 Boats – Buying second-hand: S&S cruisers

on much smaller budgets, but I only set off – and Mum and Dad only allowed me to go – because everything on *Ella's Pink Lady* was perfect. Without my amazing sponsors to buy the best equipment I wouldn't have left.

'There were certainly some pretty hairy days out there and after the worst knockdown I didn't think *Ella's Pink Lady* could still be structurally sound, but she was. The only damage was to a few of the solar panels and torn sails.'

When I asked Jessica (who told me she loves reading PBO) what's next, she replied: 'Who knows what the future will bring, but for now I'm happy finishing my degree and sailing on weekends.'

But you don't have to sail so far to appreciate the S&S 34. In an email to me about the 2014 Sydney-Hobart Race, Shane Kearns wrote: 'The run down the Derwent was some of the best sailing ever, with the Code 0 in 25 knots of breeze and us doing 10 to 11 knots. We finished eight minutes inside four days, which must be the fastest trip ever for an S&S 34. The highest speed we hit was 16.6 knots on a surf, but 11 to 14 was easily achieved with the spinnaker and staysail set.'

Experienced delivery skipper David Thompson is another owner to sing the S&S 34's praises, saying: 'The owner before me did four Transatlantics in her, including the OSTAR. She's what I call an offshore boat – very stiff, seaworthy and goes like a train to windward if it's blowing hard.

'The raised sheer at the bow makes her a dry boat for her

size. She has a big skeg rudder that's unbalanced, as on many boats of that era. The pinched stern makes her a bit of a handful going downwind at speed, but the big rudder would always haul her back. With the powerful keel and strong construction one could hang onto lots of sail if the wind got up a bit. I have always disliked boats that you have to reef and then unreef if a squall comes through: too much work!'

#### **Consider a Swan**

If you want to join a blue-chip S&S club, consider a Swan. Every year there are rallies and regattas in different parts of the world, and these are open to the oldest and smallest Swans as well as to the largest and latest. Swans still enjoy the highest quality and kudos of any GRP production yacht brand.

When Nautor started the Swan range in 1967, it stood to reason it would commission the leading designer in the world to draw the lines and guarantee top performance and handling. And to this day, the first Swan the 36 - remains one of the most beautiful GRP production boats ever built. Similar in line to famous S&S one-offs such as Roundabout, Clarionet. Rumbuster, Hestia et al, Swan 36s won races galore as well as giving their lucky owners easy, fast and comfortable cruising.

The Swan 38 is equally desirable. Angus and Annette Newton (the first lady Commodore of the Royal Southern YC) admired the 38 but reckoned she was out of their price range until they spotted a



Clarionet, built in 1966, is one of the famous S&S one-offs

'75 model for sale second-hand in 1981. Since then they've enjoyed 33 years of cruises to the West Country, north and south Brittany and occasional races, including an overall win in the Cowes-Deauville race. They also took part in all the North European Swan regattas until recently and now enjoy the Swan Rendezvous in Guernsey.

And what about 33 years worth of maintenance? Annette says: 'We replaced the Bukh 20hp with the 24hp version when she was

20 years old, and the teak deck after 25 years. The mast is original. Electronics were installed or replaced over the past 10 years.

'Kuutar's layout is
"traditional Swan"
with central table,
settee and pilot berths
either side, an early
version of an aft cabin
with a single and
cosy double berth –
but without much
headroom – and long
and comfortable pipe
cots in the fo'c's'le,
providing six sea
berths and dining for
eight when at rest.

'Much of the varnish work below is original and looks good, except – on closer inspection – some edges! *Kuutar* was painted a stunning mid blue just before we bought her and we have had her painted twice since, the first time after some minor rub damage suffered during the 1987 storm, and again in 2008/9.

'She suits us well although she isn't as easy to manoeuvre as a more modern boat: going astern can be interesting! She's excellent in light and heavy weather, a good sea boat, and gives confidence in any conditions.' To prove the point, another 38 *Gweneven* has just taken third in the Panerai Transat Classique 2015.

Other popular S&S Swans include the 37, 40, 41, 43, 48, 55 and mighty 65. They are all beauties and much in demand: they are also robustly built and stand the test of time. Of course, like other S&S designs they made their mark before sterns got fat, ballast ratios got thin and interiors became cavernous. However, many sailors - myself included - love them for that. You'll never see their like again, and - as countless current owners prove - an S&S boat often becomes a boat for life.





Swan 38: available second-hand from £77,000





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## **PBO** Ask the experts

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#### **INFLATABLES**

## **Becoming hopelessly unstuck?**

STEP BY STEP

I have been making the odd repair to rubber dinghies for about 50 years, but this present one has defeated me. The dinghy is a 2.7m (9ft) Avon Rover RIB, which suffered a 1/2 in cut on the top of the tube. After four attempts at patching in the normal way I gave up and bought IBS toluene cleaner and two-part IBS Hypalon adhesive, but the result was the same: after following the instructions and leaving a weight on the patch for two days, the patch swelled up like a dome and again detached itself from the tube. The adhesive simply will not adhere to itself. This has been the problem all along, and remains so.

To go to a service centre is not a practical option because none exist within at least 200 miles! I do not wish to scrap the dinghy as it is perfectly serviceable in all other respects. Any repair must be secure because the dinghy lives out on running lines and would drown the outboard if it failed. IBS cannot suggest anything and refute the possibility of any fault with their glue. What can I do next? The item is needed back in service asap. David Johnson, by email

#### **BARRY PICKTHALL REPLIES:**

A ½in cut in a rubber dinghy tube should be straightforward to repair, though you're obviously having trouble getting the adhesive to stick. This is invariably caused by a



Cut out a round patch, or if rectangular, cut it out with rounded corners, position over the split and trace round, adding positioning marks to patch and tube

contaminant either on the patch or more likely the rubber tube. This can also occur if conditions are damp or humid. You need to clean off all the glue residue and rub the area down with sandpaper to key it.

Are your Avon tubes made from PVC or Hypalon? If you can see the inside of the tube through the split, Hypalon is a dark grey or black on the inside while uPVC is the same colour as the outside.

- Sand the area. Hypalon will matt down and produce a dust while uPVC will just scratch, with no difference in colour.
- Wipe over lightly with MEK (methyl ethyl ketone) available at hardware, paint or plumbing stores or acetone. Hypalon will leave an oxidisation and some colour on the cloth. The material will not be affected. If it is uPVC, you will have some colour on the cloth, and the surface of the material will feel tacky.

Your workspace needs to be warm, dry and well ventilated. Solvents are highly inflammable,



Abrade the fabric surfaces thoroughly with 100-grit sandpaper, being careful to stay inside the marked-out area



Tape round the outside of the patch area with masking tape to contain the glue



4 Apply glue with a cut-down paintbrush on both the patch and the masked-off area of tube. Allow to dry for 15 minutes or until touch-dry, then apply a second coat. Let this dry for a further 10 minutes



5 Apply the patch accurately by aligning the positioning marks, and smooth out air bubbles using the wooden smoother. Remove the masking tape, press down the edges and wipe off the crayon/chinagraph marks with a cloth

so never use a gas fire, naked flame or heat gun as a heat source when adhesive or solvent is present. Adhesives have a limited mix life of 30 minutes: don't attempt to apply the second coat after this time.

This is another reason why a patch may not adhere properly. If the second coat starts to dry out before the patch is applied, the glue can be reactivated by applying solvent.



■ Barry Pickthall has been a naval architect and a yachting writer.



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**SEA SAFETY**Will Stephens is
Staff Officer
Operations (Coastal
Safety) at the RNLI



Simon Tonks has worked in marine insurance for over 18 years as a broker and insurer



**CRUISING**Stuart Carruthers is the RYA Cruising Manager and has sailed extensively



**SAILS**Ian Brown of the International
OneSails loft group is an expert on sails



**MASTS & RIGS**Mike Coates worked in the spar and rigging business for many years



SURVEY AND CORROSION Colin Brown runs a marine survey and consultancy company, CB Marine Services



ELECTRICS
Paul Holland is
chairman of the
BMEA and MD of
Energy Solutions (UK)



ENGINES
Pat Manley is
a diesel engine
course instructor
and marine author

#### **ELECTRONICS**

## **Faulty old GPS antenna**

My Westerly Ocean Ranger has the original instruments, and on a recent sail from Holyhead to Caernarfon the old Autohelm ST50 GPS system failed to find any satellites. This wasn't critical at the time as we were in sight of land and the weather was pretty clear throughout. Our local instrument specialist has checked with his own old but fully working antenna, and our system immediately logged on to six satellites – proving that the instrument works but the antenna is not functioning.

In the event of not being able to source an exact replacement, can you recommend an alternative antenna that will allow me to continue using the existing set-up? We operate the navigation system using SeaTalk to allow the Autohelm ST7001 autopilot to respond to waypoints.

Chris Russell, Shropshire

#### **CHRIS ELLERY REPLIES:**

The old ST50 GPS (sometimes branded Navdata) display has an NMEA socket on the back which is two-pole. If your current system is using a SeaTalk antenna then feeding position information into the NMEA socket instead should

work. The NMEA socket is located above the two flying SeaTalk leads and may be covered with a cap. With the right cable – itself not easy to come by nowadays – the display could be connected to a GPS NMEA 0183-transmitting GPS antenna such as those sold by



Chris Russell has been having trouble with GPS reception to his elderly Autohelm ST50 system

Icom (£114) or Standard Horizon (£129). The Standard Horizon one has more robust cabling.

I suggest you ask your local dealer whether the existing antenna is SeaTalk or NMEA, as very early ST50 GPS systems used the NMEA socket connected to a rather large black box GPS with a separate antenna.

I can't say I've tried to use the Icom or Standard Horizon antennas on an ST50 display, but it should work despite the difference in age. It would be quite easy to wire one up and try it.

#### **MASTS & RIGS**

### Do the jam, do the twist

I own a MacGregor 26m and will soon have to re-rig her. She has a rotating mast which, to me, means fixing the blocks to the mast rather than to the deck. Another owner used mast-mounted Lewmar blocks with attached jammers, but these are not made any more. I would need to run the mainsail and spinnaker halyards plus the topping lift into the cockpit. Apart from riveting eye plates to the mast and attaching blocks to the eye plates, I can think of nothing else. Any suggestions? Simon Armitage, by email

MIKE COATES REPLIES: From the information supplied I note the jib halyard is external, and can only assume both the main and spinnaker halyards are similar or exit the mast through slots reasonably high up the spar wall.

If this is the case it shouldn't be a problem leading the halyards aft over the coachroof via turning blocks on the deck close to each side of the mast or, if you prefer, to terminate the halyards near the mast foot via a block with a jammer. The rotation of the mast will have little effect on halyard tension, nor will the lead of the halyards significantly affect the rotation of the mast.

Suggested blocks: Barton 02170 or 02571 with jammer. The blocks will have to be through-bolted to give sufficient strength to prevent them tearing out of the deck: if



Mike Coates suggests the use of a Barton 02170 or 02571 block (pictured) with jammer

there is a fixed internal GRP headlining the bolts will have to pass through the coachroof and inner liner and a pad on the liner to spread the load. You may have to fit compression/ spacer tubes between the inner face of the deck and the outer face of the lining before fitting the pad to prevent the liner from being compressed by the bolts. Drill the mounting holes through both deck and head liner then drill a hole in the head liner to take a spacer tube: cut the tube so when inserted against the inner face of the coachroof it is just slightly below the surface of the liner, fit the pad - a stainless plate will be less obtrusive - and

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**GAS FITTINGS**Peter Spreadborough, of Southampton
Calor Gas Centre, has 20 years in the industry



PAINT AND ANTIFOULING Richard Jerram is former UK technical manager of International Paint



Andrew Blyth is a naval architect with interest in stability and buoyancy



TOILETS AND PLUMBING Gary Sutcliffe of Lee Sanitation knows about holding tanks, toilets and plumbing



SAILING
Colin Haines is a
design engineer
who has trailersailed for 25 years



Chris Ellery of Greenham-Regis Electronics is a former Merchant Navy officer



BOATBUILDING
Tony Davies has
been building and
repairing wooden,
GRP and steel boats
for 40 years



WOOD
Richard Hare is a
wood technologist
and long-time
wooden-boat owner



#### **ENGINES**

### **Cooling water: whoosh or gurgle?**

I own a C-Kip Trawler, built around 1978. A while back I changed both exhaust elbows and exhaust boxes on its pair of 120hp Ford Lehrman six-cylinder diesel engines, but now I have a query. The port engine pushes out cooling water through its exhaust with a customary 'whoosh' every few seconds, but the starboard engine discharges with a sedate flow. I have no running or overheating troubles, but the difference in the way the cooling water is pumped out does make me wonder if there's a problem there somewhere.

Geordie Cartlidge, Bristol

#### **PAT MANLEY REPLIES: It**

may be no problem at all. A small difference in the way the exhaust pipes are run could cause this difference in flow, or even small differences in wear of the water pumps or their



Geordie Cartlidge owns a C-Kip trawler similar to this, and has a query regarding exhaust cooling

impellers. If you can observe the exhausts at higher rpm, you may well find they both look pretty much the same.

I wonder if this symptom occurred only immediately after you'd changed the exhaust elbows and boxes. It could be worth checking for any kink in the water supply hoses to the exhaust bends.

A difference in output could also indicate there is some difference in the internal construction of the two exhaust boxes. If the engine water temperatures are fine and the engines are running satisfactory, I'd just accept things as they are – but keep your eyes open in case of changes, particularly to water and engine temperatures.

#### **PAINT AND ANTIFOULING**

### **Beset by tube worm down under**

The photo below shows my propeller after five weeks in a marina over summer: I hadn't started the engine during that time. The skipper on the adjacent pontoon berth asked me if I had Australian tube worm as he and many others had been forced to lift out due to various degrees of power loss. In my case, when I

started the engine it fired first time as usual, but stalled when put ahead or astern. I tried to turn the prop by hand, but it wouldn't budge. I resisted the temptation to apply leverage to the shaft, and the boat had to be towed to the hoist for the lift-out.

I watched other boats being lifted out, and many made the

growth on mine appear minimal as their whole underwater area was maybe 3in thick with fouling.

So, what do we know about Australian tube worm, if indeed that's what it is? And what is the best treatment for a propeller? Mine is treated yearly and the boat is ashore for the six winter months.

David Lines by email

#### RICHARD JERRAM REPLIES:

This indeed looks very much like Australian tube worm, which originates from the Southern Hemisphere although it is not absolutely certain that it comes from Australia. It is particularly active in estuaries and marinas where the water is brackish and has a particularly high reproductive capacity.

As you have discovered, once it has established itself on propulsion equipment it can severely restrict a boat's performance. It is therefore important to treat these areas with a suitable antifouling.

I would recommend that all susceptible areas are thoroughly cleaned and abraded with an 80-grade abrasive, and primed with an underwater water primer. I would then apply a minimum three coats of a copper-free antifouling (particularly if the substrate is aluminium) to ensure that you have an adequate level of biocide to cope with this crustacean.

#### CORROSION

## **Cobbling up keel shoes**

Over a year ago I bought a bilge-keel Atlanta 25 which I still haven't got around to sailing due to work needed on the engine, headlining and other bits and pieces. In the meantime she has been moored on a tidal inlet in Kippford in Scotland. The bed is a mixture of stone and thick mud, which has caused some serious damage to both feet of the bilge keels which are letting in water.

For a long-term fix, one recommendation has included strengthening the bottom of the keels with stainless steel shoes, while another has suggested Kevlar. What do you think would be the best answer, and preferably cheapest? I am reasonably confident doing the Kevlar, but would need a professional to do the stainless steel work. Can you also let me know what putting on stainless steel shoes entails so I can check with the company who may end up doing it?

Roy Sheriff, by email

#### **COLIN BROWN REPLIES:** Your

first job would be to repair the damage to the keels with mat or cloth and resin similar to that used originally. You don't say what your ballast is, but if it's iron then you must take care to clean, dry and prime the exposed surfaces to prevent rust, which has the potential to expand and do further internal damage.

The cheapest option for keel shoes would be galvanised mild steel. Any coatings would wear off the bottoms, but the galvanising would preserve the tops and insides. Stainless steel would be as effective in use but more expensive. I would stay away from Kevlar or any other hi-tech materials as they need exotic resins to stay together, and these require precise control of temperature and humidity to fully cure. Such structures would also be less resistant to abrasion than metals.

It's not easy giving advice on attaching shoes to keels that I haven't seen, but I'd expect that a combination of bolts through the keel and adhesive sealant would work in most cases. Make sure the bolts are well sealed to prevent water getting to the ballast.



David Lines' propeller after five weeks in a marina over summer. Is Australian tube worm the culprit?



Scarborough

The jewel in the crown of the Yorkshire coast looks particularly picturesque if you arrive by sea. Sarah Norbury guides us in to this much-loved resort town

fter a long sail up or down the north-east coast of England, Scarborough has everything a tired, hungry and thirsty crew could desire - including pontoon berths for visitors complete with electricity, water and a walkway

#### **ABOUT THE AUTHOR**



Former PBO editor Sarah Norbury is now a contributing editor and a

freelance writer. She cruises extensively in Brittany on a Starlight 39 as well as racing sportsboats at home on the Solent.

ashore. From the marina it's just a short walk to the yacht club (in a lighthouse!), the sandy beach, magnificent Victorian hotels and a huge choice of places to eat and drink.

Harbours on this part of the coast are few and far between. Summer visitors sailing north from the big Essex and Suffolk marinas have to make a long haul up to Grimsby, a day's sail south of Scarborough. Once they're up to Bridlington, in the lee of Flamborough Head, they are within three or four hours of Scarborough, from where it's another half day or so north to Whitby.

It's not surprising that with the nearest harbours being such a long haul away, Scarborough's permanent marina berths are full, and there's a waiting list. People we met on the pontoons were

mostly enthusiastic local cruisers and racers and intrepid longdistance sailors on round-Britain voyages, the latter enjoying a bit of rest and recreation and the chance to refuel and take on water, before setting off on their next leg.

#### **High turnouts**

Sailing is very popular here. Scarborough Yacht Club's races see high turnouts of cruiser-racers and sports boats, and it hosts the annual North Sea Race that starts in the bay and finishes in Holland. There's an active fleet of 707s. the David Thomas-designed 7.07m (23ft) sportsboat, and Scarborough hosts regional and national class championships on a regular basis, which is why I have sailed there myself, as crew on 707 Betty.

We trailed the boat to

Scarborough, by road from the South Coast. The first glimpse of the town as we drew near was dramatic: the Victorian architecture from its heyday as a grand seaside resort is still impressive, then you round a corner and there's South Bay, and the curve of the sandy beach, and then when you get down to the seafront, the colour and clamour of amusement arcades and bucket-and-spade shops.

Once there, we 'dry' sailors soon got to know the harbour and its approaches. Our boats were craned into the inner harbour near high water, then we motored over to our visitors' berths. We were always very aware of the tidal height, leaving harbour each morning for a hard day's racing then rushing back to harbour before the ebb tide could get the last laugh over our 1.5m keels.





### **Getting to Scarborough by sea**



ailors planning to arrive by sea should be aware that the Imray Pilot, Forth, Tyne, Dogger, Humber, is still in its first edition dated 2002, and the information on Scarborough pre-dates the marina pontoons.

The chartlet and aerial photo show the only visitors' moorings to be in the drying outer harbour, and the text advises likewise. There is no printed addendum sheet in new copies. However, on the Imray website, it states: 'There are stay-afloat visitors' berths in the main harbour marina with power and water. Adjacent the visitors' berths are the hardstanding and grid (as per C29 charts)'. The most up-to-date information on Scarborough's approaches, Yorkshire Ports website (www.

From seaward, the castle headland which rises to the north of the harbour is unmissable. with its distinctive fortifications 76m above sea level aton sheer cliffs. The harbour is tucked in to the south of the headland, with a 17m-high lighthouse marking the eastern side of the entrance. Avoid cutting the coast too fine as there are rocky shoals off the castle headland and East Pier head, and just south of West Pier is an outcrop called Ramsdale Scar. The harbour office recommends approaching from the east and suggests a waypoint at 54° 16' ·50N, 00° 22' ·00W. which puts you at 0.88NM from the end of East Pier (with a quick green flashing light at night) which will bear 295°.

Approaching from the east,

will go past this entrance and turn hard to starboard after the lighthouse to enter the inner harbour. Turning to starboard at the lighthouse, aim directly between the heads of Old and West piers. To starboard you'll see a gap into the outer harbour: go past this and continue in towards the marina.

Ramsdale

In strong south-easterly and easterly winds there may be large breaking waves off Scarborough which can make entry inadvisable. Before you arrive, call Scarborough Port Control on Ch12. Give your ETA and vessel details and the watchkeepers will advise you on the current depth of water in the approaches - there's a tide-gauge monitor in their control room and will allocate you a berth.

Picturesque Scarborough is even more delightful to the eye when you enter by sea. As you motor in

to the harbour you're suddenly inside a multicoloured world. There's a Ferris wheel in front of you, charming historic houses on the harbour front and brightlypainted tourist boats, all against a backdrop of green hills and the ruined castle. The scene is all the more pleasant if you're in a state of semi-euphoric relief at having made it in against the clock, rather than being stuck outside waiting for the tide to rise.

Chartlets not to be used for navigation

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There's around 0.5m of water in the entrance at chart datum. At Neaps there can be as much as 2m at low water, but do check the tide tables and be aware that there's often a swell which means shallower water in the troughs. The entrance and inner harbour are dredged a couple of times a year. Depths at the visitors' berths are not guaranteed, but the harbour office says there's generally enough water for most yachts to



The first sight of Scarborough as you enter the Inner Old Harbour



## Picturesque Scarborough is even more delightful to the eye when you enter by sea. As you motor in to the harbour you're suddenly inside a multicoloured world

stay afloat round the clock.

Admiralty chart 1612 consists of chartlets of north-east harbours, including Scarborough. The scale is good and soundings are easy to read. The Yorkshire Ports' chartlet on their website is useful but less detailed. If you're pushing your luck, just scraping in or out at the bottom of the tide, you may find lumps and bumps between the marina and the harbour entrance. Locals know them well, and we eventually learned that there's a nasty shoal sticking out from the wall just south of the scrubbing grid.

Visitors are accommodated in the inner harbour marina on pontoons serviced with water and

electricity. The visitors' berths are administered by harbour office staff who in summer months are based in the lighthouse, which also houses Scarborough Yacht Club and the showers, toilets and launderette. On arrival, make your way to the lighthouse to register and obtain keys for the facilities.

The harbour laws state: 'All visiting craft are required to make their presence known to the harbour authority within 24 hours. Registration is obligatory and forms are available from the lighthouse attendant, the harbour office and Port Control'. The harbour office and Port Control offices are both on West Pier.



The drying East Harbour is home to scores of local boats

## **Exploring the town**

The harbour is in the heart of Scarborough's old town. When I was there we rented a fisherman's house, centuries old, in the same block as the chandler's shop on the harbourfront road called Sandside.

The back streets are full of maritime heritage, while the southern end of the seafront is dominated by the splendid Victorian hotels that made Scarborough the jewel in the crown of the Yorkshire coast. Along the beach and in streets leading up to the town centre you'll find



Bar Street boasts a proliferation of quirky shops and cafes

restaurants serving the famous Scarborough fish and chips the traditional way, with bread and butter and a cup of tea. If you love seafood, don't miss the stalls on West Pier: I'd go to Scarborough again just for the stunningly fresh dressed crabs.

The town centre is a steep walk uphill, well worth the effort as it's here that you'll find the big shops and supermarkets as well as restaurants and pubs. If I had to pick highlights they would be the quirky shops and cafes in Bar Street and the wonderful sea views from St Nicholas Street by the Queen Victoria statue. The best views, of course, are from the castle.



Fresh dressed crabs are available from the stalls on West Pier

## Fantastic sailing experiences

Experiencing a new place in the context of a racing championship can be very informative.

In the course of a week we plied the harbour entrance 10 times and got to experience a range of tide times and weather conditions, including zero wind when we motored out of the harbour and sat in the sun, lolling up and down on the surprisingly large, slow, rolling swell – not for the weak of stomach. In the stronger winds that followed, those same waves made for exciting sailing, especially downwind when we planed at fantastic speeds. Not surprisingly, surfing is popular on this coast.

One day, the wind dropped at the end of the afternoon's racing and our little outboard motors only just managed to get us back to the marina before it became too shallow. We made it through the entrance, but once we were safely inside we looked back and saw the boat behind us aground inside the harbour on a shallow patch just off





the fish quay. How we laughed: and by the time a couple more boats were also stuck we were feeling pretty cocky. Which, of course, was when we went aground ourselves. So there we were, five or six boats, locals included, stuck on the mud, all heeled over by crew hanging on

the shrouds with helmsmen in varying states of stress as the tide continued to ebb. We all got

off soon enough, most under our own steam, a couple helped by the harbour master's RIB. We touched the bottom again as we rounded the outer end of the marina, but managed to get to our berth with a bit of heeling. Our boats have deeper keels than many cruisers, and as I mentioned, we had stayed out at sea too long - something a cruising sailor with a well-prepared passage plan would not have done. Locals have the study of tides off to a fine art and take drying out for granted. The outer harbour is full of boats of all shapes and sizes, from deepkeeled yachts to small speedboats.

We had a great time sailing from Scarborough, thanks largely to the friendly hospitality we received at the yacht club

> At low tide, when that harbour is display of yachts held upright in complicated cage structures.

Scarborough, thanks largely to the friendly hospitality we received at the yacht club. All visiting sailors are welcome, whether lone

completely dry, there's a fascinating We had a great time sailing from



voyagers or families. The bar, which is open Wednesday, Friday and Saturday nights, and Saturday and Sunday lunchtimes, is perfectly placed for boat-watching, with one side overlooking the harbour entrance and marina, and the other side, with a balconv. offering a grandstand view of

> boats at sea. There's lunch available at weekends. The club is celebrating its 125th anniversary this year but has only

been based in the lighthouse since 1952. The lighthouse itself has an interesting history, including being hit by shells fired from German warships in 1914.

As a soft southerner who cruises in the relatively sheltered waters of the Solent, I find the north-east coast rather a wild prospect. I grew up hearing tales from my parents and their friends of dinghy championships at Scarborough sailed in huge waves and high winds, talking of hideous capsizes and daring rescues by club motorboats, so it was with trepidation that I entered the 707 national championships. However, as it turned out we only experienced the notorious swell on a couple of days: the winds and waves were mostly moderate and the sky a clear, beautiful blue.

My abiding memory is of the people we met: the many keen local sailors as well as intrepid folk making their way around the entire coast of Britain. Oh, and those fabulous fish and chips.

#### **USEFUL CONTACTS AND INFORMATION**

#### **CHARTS**

- Harbour chartlet -Admiralty 1612
- Approaches Imray C24 Flamborough Head To Fifeness

Visitors' fees per night: £26.40 for a 10m yacht

#### **FACILITIES**

- The toilets, showers and launderette are in Scarborough YC. To gain entry, collect keys from the lighthouse attendant. Shower charge £1.00
- Water on the pontoons
- Electricity on the pontoons, approx 13p per unit
- Diesel fuel berth on West Pier, enquire at the lighthouse or harbour office
- Chandlers East Coast Marine, Sandside. Tel: 01723 375199
- Slipway on Sandside: keys and permits from the lighthouse or port control office
- Crane for visiting trailerkeelboats on Vincent Pier: contact the harbour office for details



The lighthouse is home to the Scarborough Yacht Club

## CONTACTS

In the summer season in office hours, harbour office staff are based in the lighthouse for the purpose of administering visiting yachts.

- Lighthouse
- Tel: 01723 360684, VHF: Ch12
- Port Control

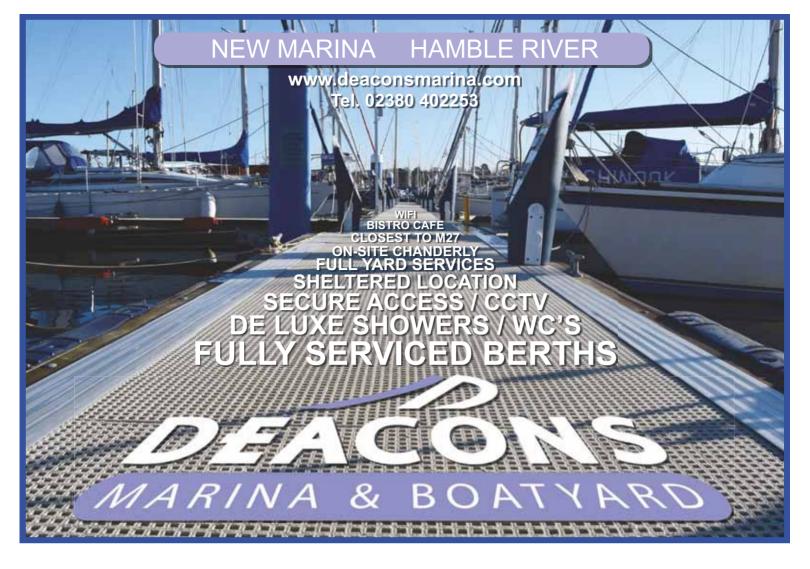
Situated on West Pier and manned 24 hours.

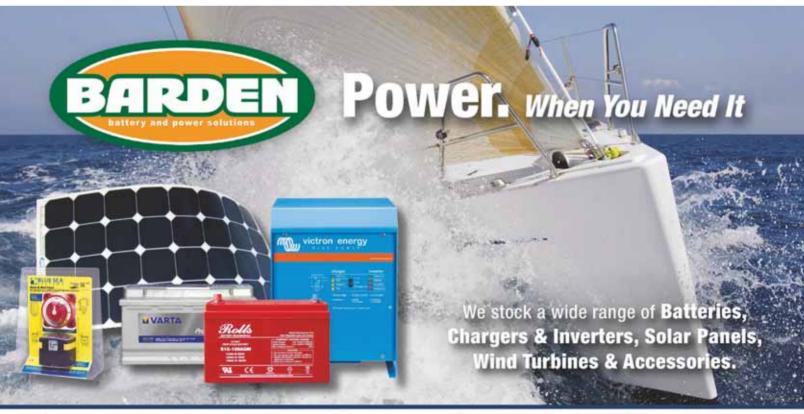
Tel: 01723 373877, VHF: Ch12

#### ■ Harbour office

In winter months, staff are based in the office on West Pier. Tel: 01723 373530. fax: 08701 911327, email: port. services@scarborough.gov.uk

■ Tourist Information www.discoveryorkshirecoast. com





BATTERIES | CHARGERS | INVERTERS | SOLAR POWER | WIND ENERGY

SOLARA

S'OLBIAN



**CTEK** 

Rolls

VARTA

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# Practical tips from a single-hander

Doctor Tom Miller shares some ideas and incentives to help make single-handed sailing a safer and more comfortable experience

ne of the challenges of sailing alone for extended periods is how to replace the exchange of ideas, opinions and experiences that take place on a crewed boat. One option is to talk to oneself, but that can become boring when you have heard all the stories before. My approach, which has evolved over 25,000NM of single-handed sailing, is to use the time to formulate ways to improve the safety, reliability, comfort and convenience of the boat you are fortunate enough to own and be sailing upon. What follows is a collection of (mostly) DIY modifications carried out on my 9.75m (32ft) kauri sloop Fantasy over the years.



Twin mainsheet system This system was devised and installed after a nasty head injury was sustained from the block of a single mainsheet system as it swung across the cockpit during an uncontrolled gybe. The dual system has several advantages for the short-handed sailor in that it is more readily

kept in a fixed position and is more forgiving if the boat sails off course for any reason including a wind shift, inattention and failure to concentrate on course maintenance. One additional plus is unobstructed access to the companionway while at anchor.



Deck safety Cabin topmounted handrails and stanchionsecured lines are the usual deck safety installations. The addition of a line, attached at shoulder height to the shrouds and leading aft to the pushpit, is an extra handhold that

provides an amazing sense of security when moving between the cockpit and mast. The line can also be an attachment point for the safety harness lanyard. The lanyard will not prevent a fall overboard, but if the worst happens you'll still be attached to the boat. The risk of tripping over the conventional lanyard can be

eliminated by replacing it with a self-coiling wire used to secure bicycles. The coil is attached permanently to the support line described, and can be clipped on to the harness at a moment's notice. When engaged forward of the mast, the clip is transferred from the line to an attachment point on the mast.



Folding safety ladder So you are in the water, but still attached to the boat by the lanyard and harness. Getting back on board is likely to be mission impossible without assistance, so port- and starboard-sited folding ladders could be just what is needed. Undo the Velcro tie cloth and the ladder unfolds to provide the required footholds.



**Boom bag** How would you like to have the reefing line tails, mainsail outhaul surplus, main halyard winch handle and sundry other lines neatly stowed and readily available when needed? A unit designed and sewn up to meet an individual boat's needs and suspended under the boom will achieve this end.





**Cockpit lockers** In yachts, quarter berths are commonly used for this purpose, but this space is inconvenient and often not readily accessible. One solution that has worked well on Fantasy has been to seal off and empty the quarter berth and convert the space now available into a cockpit locker.

Construction of the drainage system is the time-consuming part. The cockpit seat, if cut with care, can be used as the locker lid, but channels will need to be constructed to catch and divert rain and seawater from the seats away from the locker and its contents. The end result will be a spacious locker, readily accessed by a hinged lid, that can be used to stow wet weather gear, sea boots, oil and fuel, an emergency ladder, a cooler and the day's lunch and coffee.



**Halyard trap** There are few things more capable of disturbing a good night's sleep than the tap-taptap of an uncontrolled halvard on a mast. Climbing out of a bunk and tying it up usually fixes the problem, but who wants to do that on a cold night? The solution is a pair of halvard traps attached to the port and starboard spreaders. This can be achieved with some workshop effort and casting expenditure. The workshop component involves shaping a unit in wood: the forward-facing edge needs to be shaped to fit neatly against the spreader. Holes are drilled at each end of the castings which are secured to the spreader with cable ties. Locate the halyard in the trap and secure.



Staysail system Coping mechanisms for short-handed sailors dealing with near-gale to gale-force winds vary according to the vessel and how it is equipped to deal with these conditions. In the case of Fantasy, a traditional long-keel design, a system has been installed allowing a removable inner forestay to be attached and tensioned to a foredeck fitting such as a deck cleat. Once in place and tensioned a staysail can be hanked on, sheets attached and the sail hoisted and set. The sheets may require their own winches, but it is also possible to clear the existing sheet winches

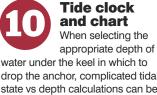
More lightly-built boats may need sub-deck support to the deck attachment point. With a reef or two in the mainsail and the headsail either furled or dropped, a boat can be managed under the conditions described with relative ease. As the wind strength eases the headsail can be brought back into use to provide a 'slutter' rig. When not in use, the inner forestay is stored back at the mast.



**Cockpit weather** cloth pockets Look around your cockpit and note the under-utilised area that the weather panels represent. Pockets stitched to the backs of these, designed to house items such as a VHF radio, binoculars, cordage and sheet ends, will provide useful extra stowage.

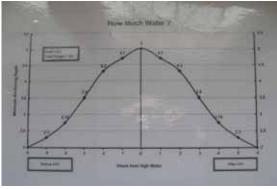


Throttle guard This unit will protect the throttle lever from a crew member's foot in the wrong place, that could alter the approach to the dock from 'dead slow ahead' to 'full ahead' with dire consequences.



drop the anchor, complicated tidal state vs depth calculations can be avoided with the aid of three devices - a depth sounder, a tide clock and a chart specifically constructed for an individual boat using the tidal range in local waters. The chart illustrated is designed for a vessel with a draught of 2m using a tidal range of 3m.

The calculation for the minimum depth required for anchoring is based on the standard 'rule of twelfths' that can be found in any book on coastal navigation dealing with the tides. Note that the change in depth with time is not linear, so each point on the graph requires an individual calculation. In practice, determine the state of the tide from the tide clock either before or after high water, select the corresponding depth from the pre-calculated chart and motor in with a watchful eye on the sounder recordings.









range extension Most VHF communications for the short-handed crew, while under way, are carried out in the cockpit using a handheld instrument. The handheld unit's range can be increased considerably by connecting the set to a whip antenna

mounted on the pushpit rail. The antenna on the handset is removed and the cable from the extension unit installed in its place. Check to see whether an antenna is available for your VHF model.



**Mainsail stowage** To install, attach ring tabs at 40cm intervals down one side of the boom. A length of 8mm shock cord somewhat longer than the boom is threaded through the tabs and the ends knotted. Clips capable of capturing the shock cord are attached to the opposite side of the boom and located between the ring tabs. To secure the sail. lower it onto the boom and. starting from the aft end, fold the sail along the boom a metre at a time. With each fold, grip a section of the shock cord between the tabs and pass the loop over the sail, and engage the clip opposite. Continue until the sail is fully stowed.

**Wood-burning heater** The wood-burning stove pictured has been in use for 25 winters and has enabled some memorable social occasions in quiet anchorages. The only problem has been getting visitors to move back to their cold boats! A similar unit can be designed and constructed by a metal fabricator using box steel for the basic unit and ash collection. The tricky part is designing the through-deck fitting that allows an external removable chimney to be

linked in with the internal chimney when in use. An insulated surround should also be planned for. Construction and installation will require some thought and experimentation, but it's worth the effort.

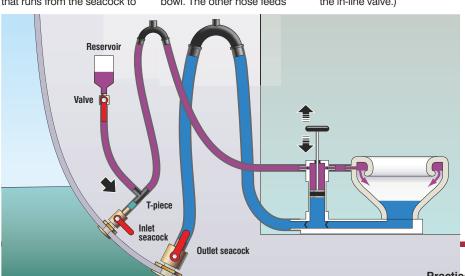


**Eliminating** toilet odour The origin of the pungent odour when a boat's toilet is flushed after lying unused for a while lies within the plumbing system, where micro-

organisms that thrive in salt water form a biofilm on the internal surfaces of the piping that runs from the seacock to

the toilet. The answer is to fill the system with a biocide that prevents microbial growth when the toilet is left unused for more than a few days. The modification needed involves inserting a T-piece in the hose close to the seacock. One of the hoses from the T-piece is connected to a 1.500ml reservoir attached to a bulkhead at a point above the bowl. The other hose feeds

the toilet. A further in-line valve is fitted below the reservoir. Before leaving the boat the reservoir is filled with a diluted biocide formulated for marine toilet use. With the seacock closed, the reservoir is filled and the in-line valve below the reservoir is opened. The contents then flow through the system into the bowl. (Remember to close the in-line valve.)



**Solar riding lights** Most boats anchoring overnight are conscientious about showing a riding light. The majority run off the ship's battery, but self-regulating solar lights are becoming popular. Their use does not have the blessing of officialdom, but they are certainly convenient as an install-and-forget item. Most will show a light until dawn, when









## Saloon table

Mealtimes apart, the saloon table is an obstacle to moving around down below. The idea of

a removable table and pedestal came from an installation in a camper van: the pedestal, sub table and floor base units are available from motorhome and camper van supply stores. Readily set up when required, the additional space available when it is stowed will be appreciated.





## Access gate

After a couple of close calls when a foot caught the top safety wire while leaving the

boat, some consideration was given as to how boarding and exiting a boat on a marina could be achieved safely. A drop-down gate, inserted in the lifelines between two stanchions adjacent to the cockpit, has served this intention well. Pelican clips allow the lines to be reconnected and the gap secured as one of the pre-departure tasks.

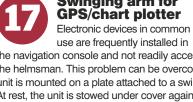
This is not a DIY job and a rigger should be consulted. (A gate near a shroud might make for a better position than the site illustrated.) Note that vibration and movement while under way can allow the pelican clips to work loose: they should be secured with a piece of tape at the outset to prevent this happening.





## Swinging arm for **GPS/chart plotter**

the navigation console and not readily accessible to the helmsman. This problem can be overcome if the unit is mounted on a plate attached to a swinging arm. At rest, the unit is stowed under cover against the cockpit bulkhead. When required, it is simply swung in an arc and positioned for viewing from the cockpit.





impeller is functioning.

#### **Cooling water** flow confirmation Failure of the engine water

cooling system, either direct or via a heat exchanger, can mean a tow back to base and an expensive repair job. Fantasy is powered by a 16hp diesel engine cooled by an impeller-driven heat exchanger. A clever engineer who installed the cooling system has inserted a takeoff point into the outlet from the heat exchanger that diverts some water into a pipe that terminates at the cockpit bulkhead. Water flowing from the outlet is assurance that the appropriate seacocks have been opened and the







#### Kerosene pressure stove

These cookers are still used by boating Neanderthals like myself.

While these alternatives to gas stoves reduce the chance of an explosion, they can provide some anxious moments during the meths preignition heating stage. A controlled heat-up can be guaranteed when one of the units used to heat a Tilley lamp is soaked in meths and placed around the burner flukes before lighting. The heating can be supplemented by adding a few mls of meths to the cup below the burner, but sufficient heat is usually supplied by the meths in the device. If not, a second application ensures a safe operation.



#### **Engine air supply**

Along with clean diesel, a ready supply of clean air is essential to keep the motor running smoothly.

With engines that are enclosed and heavily insulated to reduce noise, this requirement may fall short of being ideal. A 12V computer fan set into an inspection port insert can provide a steady flow of air. Even without the fan. removal of the insert will improve the situation.





### **Marina docking**

Docking a vessel in a marina in strong winds can be particularly difficult when

short-handed. Accidents to crew members attempting to jump onto the marina to get a line ashore are not uncommon. Problems occur when the unsecured end of the boat blows away from the dock while the other end is being attached.

Two installations will help under these circumstances: the first (picture one) is a specifically engineered berthing rod and base firmly bolted down at the end of the finger. As soon as the docking vessel is stationary in the marina space a boat hook, or preferably a specially constructed



device, is used to drop a spliced loop and 3m line over the docking device. Once the loop has dropped to the base the line is wound onto a cockpit winch and the vessel winched into position.

If the forward mooring line cannot be reached, the second ploy (picture two) comes into play. This involves a line running along the finger that has been led through several supports so that it is positioned around 10cm above the edge of the finger. A grapnel tossed from the boat onto the finger is used to haul the vessel alongside once the grapnel has caught the line. Some practice at tossing the grapnel is advisable. The mooring line will now be within reach. Secure and boil the kettle.







Coppercoat is a water-based epoxy antifouling which can be used on all sizes of craft. David Parker applies it to a tender and describes the process

oppercoat is a longestablished antifouling which was first launched back in 1991, and like many boat owners I have seen the product exhibited at boat shows and have read reports about it.

When discussing it with others I've received mixed responses, ranging from glowing testimonials about its performance to more disparaging remarks about its appearance on a hull, with comments such as 'it looks like an old church roof.' I've read the brochures, but I thought the best way to find out more about it was to try it out myself. However, I didn't want to commit to the time, expense and extra labour involved in applying a new coating system altogether to my main boat where I use traditional antifouling.

Also, if I did use it on the big boat I would prefer to apply it myself, and I was wary about

using a new type of epoxy coating on a large scale. I have experienced how epoxy coatings can go wrong in the past for various reasons, and I didn't want my whole hull affected if there was a problem. However, my tender which is afloat most of the year on the River Hamble does suffer from heavy fouling which I regularly have to scrub off when I beach her. I have not used traditional antifouling on it because of the

staining you get from both hard and soft varieties on hands, cloths and straps when car-topping the boat etc. What I wanted was an antifouling coating which was clean, effective and I could put on and forget about, and Coppercoat seemed an interesting option. Here was the ideal smaller project on which to try it out.

## **TOP TIP**

When sanding down, cheap abrasive paper is a false economy and quickly disintegrates. A decent brand might be more expensive at the start, but it lasts so much longer that it works out more cheaply in the long run.

On further research, it transpires it is regularly used on smaller craft. The manufacturers told me it can withstand regular haul-outs, and unlike conventional antifouling paints it does not oxidise and deteriorate when out of the water. Currently it is used by manufacturers of craft such as Cornish Crabbers, Honnor Marine, Swallow Boats, Ribeye, Ribcraft, Drascombe Luggers, Plymouth Pilots and the Hawk 20. Being a water-

based epoxy it contains no VOCs (volatile organic compounds) so it is both environmentally friendly and doesn't give off strong solvent vapours when you apply it. It is sold in 1lt units, and one pack would be sufficient to treat my 2.4m (8ft) tender. The retail price for a 1lt unit is £70, plus £8.50 for delivery, plus VAT: a total of £94.20.

A litre pack of Coppercoat contains 500ml of hardener, 500ml of resin and 2kg of

copper powder

## **Preparation**

s with any coating, preparation is As with any county, prop thoroughly cleaned prior to application.

Coppercoat can be applied directly to gelcoat provided that all paint, dirt, dust, grease etc is removed first. For wood, iron, steel, aluminium and ferro-cement an appropriate epoxy primer must be used before applying the Coppercoat.

On a larger craft, preparation often takes the form of using sand or slurry blasting carried out by a contractor. Here, a low-pressure compressor delivers high volumes of abrasive particles at a hull to remove previous coatings. My project would be on a more manageable scale, so once I had scraped off loose paint and contaminants such as the residue of stubborn barnacles etc I sanded down my hull with 120-grit wet and dry abrasive paper used wet. When clean, I left the hull to dry for a few days then wiped it down with isopropanol - don't used oil-based products or acetone for this job.



The first job was to thoroughly clean the hull and remove what remained of the old paint.



Masking tape was used to mark the waterline, and the gelcoat was then wet-abraded with 120-grit paper.



When dry, the hull was wiped down with isopropanol solvent - do not use acetone.

## Mixing the gloop

was told that to get even coverage and a smooth finish for this job, Coppercoat should be applied in five thin and equal coats.

All coats should be applied consecutively in a single day to ensure a satisfactory chemical bond between the coats. It was recommended that I divide the pack into five equal parts, and for each coat to mix 100g of epoxy with 100g of hardener and 400g of copper powder. This can be done by volume using containers, or in my case I pre-weighed the powder and put it into separate packets for convenience.

Because Coppercoat is water-based, the cure rate is affected by temperature, humidity and airflow. Therefore, it should

not be applied if the ambient temperature is below 8°C. Ideally, the advice is to apply it on a warm day with a little airflow and a time gap of approximately an hour between coats. However, as I was coating my tender in winter I was able to bring it undercover in the garage and use



The copper powder is very fine so it is easily absorbed into the epoxy mix.



For coating my tender I prepared five packs of copper powder each weighing 200g.



The mix can be calculated by volume, but here 100g of resin was weighed out into a clean, dry mixing pot.



On this small project, weighing out the quantities of copper powder beforehand helped when making up the resin mixes.



foam rollers can be used for applying the Coppercoat.



100g of hardener was then added using digital scales.



## Mixing the gloop - continued



The resin and hardener were mixed thoroughly before adding the powder.



The pre-weighed powder in individual bags speeded up the mixing process for each batch.



The powder has to be thoroughly mixed with the epoxy resin.



Each batch was thinned by 5% of isopropanol, so 5g of it was added.



11 It is important to regularly stir the mix to stop settlement of the copper powder.

## Application - By roller, not brush

As soon as the two-pack epoxy is mixed to the correct ratios with the right amount of copper powder added and well stirred in, the coating should be applied.

Application should be by roller, not brush. Using short-pile simulated mohair or high-quality neoprene foam sleeves is recommended: however, I found that the short-pile rollers I used shed some small fibres. Where they came off they could be seen in the coating, which was frustrating. If you try to remove them before the coats are cured you can end up taking off all the epoxy as well. I would recommend using decent foam rollers to be on the safe side.

I found that as a water-based product, the coating went on more smoothly and easily than a traditional epoxy coating, but during application it is important to keep mixing it to prevent the heavier copper particles settling out. This is especially the case when coating a boat upside down as the particles might sink away from the surface. I'm told this can happen on bigger boats at the top of rudders, for example: people sometimes find growth where they have applied it more thickly and more fluid has allowed more settlement.

As I started, the first coat seemed patchy:



When first applied it initially might look patchy, but don't put it on too thickly.

but it is important not to put it on too thickly because, like metallic paints, it can have a tendency to run. It is better to build up the antifouling layer in thinner coats, and with further coats I found the thickness built up nicely. I would wait until the coating felt almost dry before applying the next one, and as it turns out I didn't get five coats out of the pack but just over four-and-a-half. When mixing the final coat, the ratios were amended accordingly by weight.

## **Cleaning up**

Before the epoxy has cured, equipment can be cleaned in warm water. However, don't wash epoxy products into the water course or down drains. When cured it is an inert plastic, so trays and rollers can be disposed of in the normal way.

Once the coats are all completed the full cure takes place after five days, but the coating should apparently be cured sufficiently to launch after 72 hours at 20°C. As I was doing mine in the winter with colder temperatures I left it for seven days before moving the hull. When it was fully cured I then gave the hull surface a light burnish with a superfine Scotch-Brite pad to expose some copper.



2 Subsequent coats must go on as soon as the previous coat has cured, which was about an hour at 17°C.



The copper-coated hull complete. When finally cured, the surface was lightly burnished with a superfine Scotch-Brite pad to expose some copper.

## Six months later



This is a picture of the boat after it had been in the water for six months and used constantly - so throughout the season - and I'm very impressed. Previously, the hull would have had very heavy fouling on it, but as you can see the only growth is on the aluminium keel bands, which I wasn't able to prepare in the same way as the rest of the hull. As I pointed out previously, the prep work is the key factor with epoxy.

## **Verdict**



I found coating a small craft like this was a valuable way of learning about the product should you plan to tackle a bigger project with Coppercoat. Even with a small boat I found the antifouling to be effective over a six-month span and, having done it once, I would now feel more confident about taking on a larger boat. Meanwhile, I shall monitor its performance over a longer period.

■ Full application details come with the products, and more information is available from www.coppercoat.com.



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# Rounding the Bill

David Edgar experiences a knockdown on a fraught solo sail round Portland Bill as a gale gathers strength

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eturning from a solo cruise to the Helford River in my Westerly GK24 Golden Kie, I had anchored at Fishcombe Cove near Brixham Marina. The MCA forecast at 1910 had predicted westerly winds of Force 4 to 5, possibly 6. I slept well, looking forward to a fast downwind passage to Portland Marina the following day. In my eagerness to be away, I made the first mistake of the day by raising the anchor while the 0710 MCA forecast was being transmitted.

There was little wind as I motored past the marina. I raised the main, and by the time I passed Berry Head there was sufficient westerly breeze to enable me to stop the motor, unroll the genoa and be sailing. Sun and blue sky appeared, and it was delightful: the wind increased steadily, and white horses chased me. I briefly

#### **ABOUT THE AUTHOR**



Retired dentist David Edgar started sailing as a teenager in Cadet dinghies from Thames Estuary Yacht Club, Southend on Sea.

In 2004/5 he completed a solo Atlantic circuit in a Contessa 32. He holds an Ocean Yachtmaster certificate and sails his GK24 out of Shoreham Harbour.

headed upwind to put a reef in the main and roll the genoa a few turns.

By midday the wind was gusting above 25 knots and I repeated the upwind manoeuvre to put in a second reef. With only half the genoa out we were flying at around 6 knots, our maximum hull speed, and while surfing down the bigger waves we exceeded 8 knots on the GPS – exciting stuff. It was at this point I picked up a warning of an imminent gale: I needed the lee side of Portland Bill in a hurry. However, I knew that by the time I reached Portland Bill there would be a westerly-going spring tide against the strong wind, which would create a great deal of turbulent water at the very least.

I hoped to sail around the worst of the Portland Race. When I was a mile or so from the Portland Bill lighthouse, all I could see were breaking waves from every direction. There might have been smoother water closer to the coastal rocks, but I couldn't see it, and nor did I fancy taking the chance of closing the shore.

With the tide set firmly against my boat, her speed over the ground dropped to less than three knots, although she was surging through the water at over five knots.

#### **Forked lightning**

I glanced behind me. There was a massive coal-black cloud advancing above, and forked lightning was clearly visible. I dashed below for the oilies and managed to get them on just before the deluge of rain descended. It was so heavy it flattened the waves somewhat, and the extra push of wind increased our speed over the ground. The sea sizzled as lightning struck yards away.

The boat started surfing down what appeared to be the near-vertical sides of waves and riding up the following ones, pointing her bows to the sky and charging down the next while I steered as straight a course as possible. This was exhilarating, and there was no time to be frightened: my concentration was too focused on



## The boat started surfing down the near-vertical sides of waves and riding up the following ones, pointing her bows to the sky and charging down the next

steering to be aware of anything but the next wave. Ever so slowly, the old prison building on Portland came into view, then after an eternity of time I noticed we had passed the Shambles buoy to starboard.

Imperceptibly, the waves became less steep. I was just beginning to get through the maelstrom when the full force of the predicted gale hit. From leaning 10° to lee, Golden Kie crashed over on her side, mast horizontal, and water flooded into the cockpit: but then, as she turned into the wind, the mast slowly lifted and we became upright. That was a gust and a half: I had no chance of checking the anemometer to find out its speed.

Closer inshore now I could see the southern entrance of the harbour, then the eastern. I radioed in for permission to

use it and to secure a berth at the marina. With the boat's engine on, I handed the main and rolled up the genoa. The calm water of the harbour was a relief, but I was motoring into the gale: I could only manage around a knot between the gusts towards the marina.

Thirty-five minutes later, I was at the entrance. Unfortunately the autopilot could not hold me head to wind while I rigged lines and fenders, but the marina manager and another kind assistant were waiting in the atrocious weather to help me berth. Both of them got soaked while assisting me. With the lines secured, I let out a huge sigh of relief. I had been very lucky: if the gale had arrived an hour earlier, this adventure might not have had such a fortunate ending.

## **LESSONS LEARNED**

- Get a weather report close to departure time and do not leave without one.
- Do your tidal planning in advance, and don't hope for the best without it.
- From the almanac, I understood that the Portland Race moved with the tide and would be visible from the surrounding calmer water: I was not prepared for wall-to-wall breaking seas.
- The one aspect I did get right was having the correct amount of canvas up. Golden Kie always felt under control, with the exception of the very strong gust when she self-righted.

\*Send us your boating experience story and if it's published you'll receive the original Dick Everitt-signed watercolour which is printed with the article. You'll find PBO's contact details on page 5.



# Trolley dodger

Adapting a dinghy for ease ashore

Inspired by the Sealegs amphibious RIB and an irritating food pricing structure at a riverside pub, Jake Frith devised and built a fold-down front wheel system for rigid tenders

nnovations often come about for the strangest of reasons. So irked was I by a waterside pub pricing its sandwiches at 8½ to denote £8.50, I decided to take my business elsewhere.

However, this pub has a landing stage, and many others on the river do not, so I needed a method of taking my launching trolley with me wherever I went. In short, I needed to go amphibious.

Folding launching trolleys are available, but I much preferred the idea of motoring or rowing straight up the slipway to delicately step out without the water going over my wellies. I've always admired Sealegs amphibious RIBs, and figured that a similar approach of two fold-down transom wheels and a third steerable one at the bow would be the perfect solution.

For the fold-down transom wheels, I picked up a pair of 150kg-rated stainless steel ones for less than £90 new. As the wheels and tyres would have cost £40 for the pair, and the stainless steel and stainless welding rods about the same, it would be daft if I didn't just purchase these off the shelf.

Key to the success of my system would be a decent



eyebolt in the bow as this would take some of the boat's weight when pushing on dry land, so I picked up a forged stainless Wichard eyebolt for £10 from the Chandlery Barge in Swanwick.

My tender is a mahogany clinker 14-footer, fairly heavy yet fairly weak, so my design would have to place as little undue strain on the hull as possible. I thought about two eyebolts in the stem a few inches apart – the top one as a hinge and the bottom one to put a pin through to lock it down. Then I realised

that if the contraption had positive buoyancy (by building it out of wood and with inflatable tyres), and the hull support vee was well behind the pivot point, it would float back up under the hull if sunk down and back under there in the water. The weight of the hull would hold it all in place on dry land.

For the section holding the hull vee and steering axle and pivot pin together, I decided on a C-shaped semi-box-section to encapsulate the stem in three sides. I would build it first out of plywood then reinforce with epoxy and glassfibre.

Fitting the off-the-shelf rear wheels was a 10-minute job, with another 10 minutes to make up a set of pins and R-clips to hold them on. This was to make the rear wheels quick to completely remove when on the water.

## The build



I decided on a 10in steering turntable so I cut an aluminium axle of appropriate length. A pair of wheels between a short axle would be stronger than a single wheel.



The axle was set a couple of inches behind the swivel bolt so the steering would self-centre – or at least that was the plan.



The brass rubbing strip was cut away where the stainless steel eyebolt was fitted to prevent galvanic corrosion. It was bedded down with marine sealant.



Biaxial weave glass cloth and West System epoxy was laid up onto the inside of the backbone, strengthening it up a great deal.

## **ABOUT THE AUTHOR**



Jake Frith is a journalist with a keen interest in rowing, sailing and maintaining boats. He keeps a single scull for exercise, a Swift 18 for more ambitious cruising under sail and a Tideway dinghy for varnishing practice.





Large 8mm polyethelene chopping boards are 80p each at Ikea – a hardwearing bearing surface sorted. They also slide well on each other when well greased.



I even used the offcuts to make this handy caliper gauge to measure my stem width at various points, to ensure the device's backbone was made the right size.



A window in one turntable and a bolt in the other would constrain the steering to stop a wheel jamming against the hull at full lock.



A bit of scrap pipe pushed onto the ends of pairs of bolts helps prevent them snagging lines, weed etc.



Measuring the curve of the stem was difficult; this plasterboard offcut template helped matters and saved wasted plywood.



The backbone sides proper were cut from 12mm plywood. Some 3x2 softwood strengthens the join between backbone and turntable.



A 4mm third side of the backbone was bent, glued and fixed in place with brass tacks. This would finally be reinforced from the inside with glassfibre.



Extra plywood at the nose of the Extra piywoou at the head backbone made it a tighter fit. A stainless pin and R-clip were incorporated for quick release on the water.



Following a quick test push, I quickly added this short steering tiller - crucial for tight manoeuvring in reverse.



I used plastic sheeting to protect the hull when using epoxy, microfibres and softwood to build up the vee supports.



Some spare saddle leather I had left over from collaring a pair of oars provided a durable but soft hull-padding material.

## **Testing time**



It was soon apparent that close-quarters steering and pushing was best conducted from the bow.



Once on the straight slipway, a more dramatic speedy entry from the stern took over.



As I was already at the stern, I could quickly lift the rear wheels up...



... And then up comes the front wheel assembly.



She rows fine with wheels up, but looks a little curious...



6 ...However, the pins and R-clips front and rear make full removal easy.



7 Half a minute later, and the only outward signs are now the two small fittings on the transom and a stem eye.



The front assembly just floats in front while the pin is replaced...



9 ...But is easily pushed under water to engage with the hull to bring the boat back ashore.

## The inspiration



Sealegs amphibious RIBs are sold all over the world for leisure, rescue and military purposes. They are a solid bit of kit with an aluminium hull and hydraulically-driven wheels and lifting motors. With mine costing less than £150 to build (and that's including £89 for the rear wheels), it's not really fair to compare it with the self-propelled Sealegs RIB, the most basic 6.1m model of which comes in at a hefty £55,974 plus VAT in the UK. However, when thinking about the basic layout of my design I must confess I had this pricier predecessor firmly in mind.

## The future

I have a concern that my device is bespoke to my boat, so if I should change boats I will need to make another one. With that in mind, I've also been thinking about a more substantial version made out of box-section stainless steel that would be adjustable to fit any small boat with a solid bow area to which an eyebolt could be fitted.

ALTERNATIVE DESIGN FOR A SMALL RIB Adjustable angle rectangular box vee support section on stainless steel Turntable mechanism as before Locking bolts so backbone has adjusting shape and angle Vee locking bolt

## Tips, tricks and lessons learned

The first full launch test was conducted on a drizzly Hamble front, and to make matters worse it was low water, which meant a long slippery push back up the ramp. It performed impressively for a first prototype, but there are a few improvements I will incorporate into a MkII version I'm already planning to construct next winter.

## **Turning angle**

Until you have beheld the lack of manoeuvrability afforded by 45° of front steering lock and a 14ft wheelbase, you may not realise just how much manoeuvring it takes to get this boat into a tight dinghy park space. Unlike a trolley, which pivots on the spot around wheels near the centre of the boat, it's a 10-point turn to get it into my parking space. MkII will be built a couple of inches higher so it can have 360° swivelling front wheels.

## Steering bolt angle

The steering turntable needs to be horizontal and the pivot bolt vertical - just like a trailer jockey wheel. Due to hasty measurement and construction, mine isn't. This

means mine errs towards the straight-ahead very strongly.

In some ways, this is a good thing. Once it's on the ramp, it launches itself – I just have to run down after it and jump into the stern at the last minute.

However, for manoeuvring especially in reverse - mine needs the added tilller, which perhaps with a horizontal turntable it would not. The tiller is an inelegant additional bodge, serving mainly to bark shins and constantly remind me of design oversights.

#### **Hull care**

Although a hull can stand being supported by both ends for a short while, as occurs at sea between two steep waves, for long-term storage I wind up a car jack in the middle of the hull. While the temptation to do 007or lifeboat-style launches with passengers all in the middle of the boat is undeniably high, it is not recommended as regular treatment for a 50-year-old wooden boat. However, with a tougher, shorter GRP tender it would probably be fine and the kids would love it.



For long-term storage, I wind up a car jack in the middle of the hull

#### **Good points**

The buoyancy is perfect, vindicating my choice of making it out of wood and using pneumatic tyres. This is quite important, as if it was too buoyant it would be hard to sink it to bring the apparatus forward and out when in the water. With too little buoyancy, it would not sit snugly up against the hull when in the water and approaching the beach. When sinking the apparatus under the boat it floats back up around the hull, engaging with a satisfying 'thunk'.

Getting it all lined up to put the pin back in when refitting is also

much easier than I thought it might be. It's really not much of a fiddle and takes less than 10 seconds each end of the boat. which is great news as I don't want to spoil the lines of my boat by rowing up the river with either front or rear contraptions in their up positions. When reattaching it is not even necessary to support any weight as the wheels simply float upside down in front of the boat, so both hands are free to orientate and fit the pin.

Best of all though, it works, solves a problem and nobody else has got one.





# Milford manoeuvring



Sam Llewellyn points his eBay Corribee towards industrial and rustic Milford Haven, and contemplates circumstances under which the concept of 'terrible beauty' might be applicable

s all the world knows, Milford Haven is a long inlet in the end of a peninsula sticking out into the southern end of the Irish Sea. Between the scatter of islands at its western end and the Tuskar Rock off Wexford, the weather and tides pile up and eddy and blow and flow with grim intensity. So as the coast turned north and Skokholm came up on the bow, followed by the long, bird-haunted aircraft carrier of Skomer, we felt, frankly, relieved. There are fierce rips among the islands, and overfalls, and between Skomer and the mainland the rock-studded nine-knot tides of Jack Sound. We were going to ignore the lot and head inland.

The mouth of the Haven is broad and welcoming, with a shoal in the middle marked by a beacon. The wind was from the north-west, Force 3 to 4. This was good, because the Corribee's outboard was reluctant to start, and its position on a mounting bracket on the transom is not conducive to mid-ocean repair, so we had decided to do without it for the moment. To the north of the entrance is Dale, a decent anchorage in anything north of west. To the south is Thorn Island, once a hotel, now a mere fort, with beyond it a stretch of low cliffs running up to Angle Bay. Angle Bay has a pub of exceptionally high quality, with a fire rumoured not to have been allowed to go out for several hundred years.

But Angle Bay dries, and a pub fire is all very well, but approaching it with the Corribee's fin keel would not have been conducive to mellow fireside reflection. Anyway, we were pushing the last of the ebb, and the tide would soon be making, and earlier experiences in the Haven suggested that if you do not have the tide on your side it is scarcely worth bothering, particularly if the engine is refusing duty. So on we went.

The first thing you notice about this part of the Haven are the tankers. At the Qatar jetty opposite Angle Bay, a lot of the natural gas that brews up Britain's baked beans and electricity arrives at the rate of one ship every 20 hours. The LNG tankers alongside the jetty are all that stands between us and Mr Putin (and goodness knows what will happen when he works out what could be

## **ABOUT THE AUTHOR**

Regular PBO columnist Sam Llewellyn has been restoring his eBay-bought Corribee since August 2012. He is editor of *The Marine Quarterly*, and author of nautical thrillers.



done with a submarine lurking in the deep water south-west of Skokholm). For reasons of security, leisure craft are supposed to avoid hanging around within 300ft of them. We proceeded on a broad reach, everything drawing nicely, sailing as only the Corribee can, far down on the southern side of the channel to make the best of the breeze, feeling smug.

## **Deep breathing and silent prayer**

The smugness evaporated as we entered the lee of the first tanker and the wind dropped flat. This would not normally have been upsetting, as the Corribee sails in no wind, kind of. Looking ahead, however, I noticed that the Irish ferry, whose terminal is at Pembroke Dock, was approaching, fussily escorted for health and safety reasons by a fine specimen of a Svitzer tug. It is astonishing how narrow a waterway can feel when an LNG tanker, a big ferry, a big tug and an eBay Corribee are all looking for sea room, particularly if the Corribee lacks motive power. We struggled into the backwash of a big green buoy and sat there like a kayak, hoping we were more than 300ft off the tanker, doing deep breathing and silent prayer as the monsters churned by. Then we proceeded – slowly at first, and then, as the wind found its way round the tanker and the Haven broadened out, with a healthy ground-covering bustle.

Once the Corribee digs her shoulder into the water she moves steadily and with fine balance. This is just as well, as it gives the mariner time to admire the evolutions of the tugs. They are driven by Azipods that can turn through 360°, and their evolutions are calm and intricate as they nudge and worry enormous tankers into inch-critical slots alongside the jetties.

ABOVE 'The first thing you notice about this part of the Haven are the tankers'

MAIN The slipway at Black Tar, just to the north of Llangwm. Until recently, the women of the village took the lead in courtship, and in return were permitted to carry large loads of fish to distant markets



We were in need of supplies. The handiest place for them was the town of Milford Haven, which started off as an ideal village planted by an 18th century nob, was admired as a centre of shipbuilding by Nelson, and has developed into a bustling little metropolis that services the people who work in the refineries and terminals that line the waterway.

#### **Chocolate digestives**

We sailed very, very slowly into the uncertain airs fanning the waiting pontoon for the marina lock, rolled up the genoa, looped a line over a bollard, tied up and made the weary walk past the marina to the nearest plain chocolate Digestives. (By this year's season the Digestives will be closer. The entrance lock is having a new set of intermediate gates fitted which will make access possible for yachts 24/7, 365 days a year, with a maximum wait of 20 minutes rather than the current two hours' free flow with a possible two-hour wait at other times of tide.)

The wind was going round in very gentle circles when I got back to the pontoon. I untied the boat, held on with a boat hook, and let go when the zephyr seemed to be breathing offshore. We wobbled out into the true wind. I unrolled the genoa which said, quietly, *whap*. The wake started to gurgle discreetly. We were sailing again.

It is hard, when proceeding up Milford Haven, not to meditate on the concept of terrible beauty. This was used by the poet WB Yeats, referring, I think, to the 1916

Easter Rising in Dubin. It certainly applies to the rocks and islands in the Haven's western approaches. Today's question was whether it could also be applied to oil.

question was whether it could also be applied to oil refineries, several of which were sprawling behind the cliffs. On the pro side, the hazy visibility gave the refineries a silvery look, so they could at a pinch be thought of as castles in the sky. On the con side, they were horrible great lumps of concrete exuding toxic stink. The inner dialogue was resolved when we passed to leeward of a wind farm. This obliterated the breeze just as effectively as the LNG tanker on the Qatar jetty and gave rise to a new dialogue, namely what would happen when the whole world was covered with wind generators, and the wind stopped blowing (this is the kind of mental chewing gum that clogs up the mind after a longish passage). There were also other matters to consider. We were passing the Pembroke Dock ferry port and a Martello tower, tuning the inner ear for the ghostly roar of the gigantic Sunderland flying boats once built and operated here. More importantly, the road bridge was coming up ahead.

It is a big bridge, set on soaring concrete pillars. The breeze can blow round in circles under it, and the tide 'As all the world knows, Milford Haven is a long inlet in the end of a peninsula sticking out into the southern end of the Irish Sea'



## 🚺 Cruising – Milford Haven

runs strong. The luff of the mainsail bulged back, and we hardened the sheet. Shoved sideways by an eddy of tide, we dodged a pillar and slid under the span.

A large motor cruiser was coming at unpleasantly high speed out of Neyland Marina, but we forgave him because the wind was funnelling out of the inlet, lifting us so we could aim straight upriver. As we passed him we wondered whether he would like us to point out, on a pro bono basis, that he still had a couple of fenders down. Deciding against it, we set off upriver.

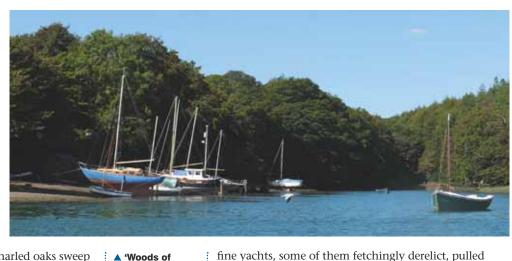
The bridge marks the dividing line between the industrial Haven and

the rustic Haven. Above it, woods of gnarled oaks sweep down to the jade-green water, which is here known as the Cleddau Ddu - the Black Cleddau. Boats admire their reflections on mooring buoys, and the white and wizardly tower of Benton Castle peers out of the trees. The wind died to a mere waft off Rudders boatyard, and the tide swept us on. As we entered the next reach the breeze hit us with a thump.

#### Over on her ear

The river is more like a river than a fjord now, highsided and much narrower than in its lower reaches. Its speciality is funnelling. Suddenly the Corribee was over on her ear, and water was firehosing through the chainplates, and there was the irritating but at the same time stirring slip and crash of pots and pans hurtling down to the lee side of the cabin. There were other boats up ahead, some of them much bigger than the Corribee. Gratifyingly, we were reeling them in. In two tacks we were overtaking. Not, you understand, that this was a race. It was almost certainly because they were in a hurry for their gin that they were lighting their engines and bustling in to Lawrenny, home to a good café, welltended and economical moorings, and a friendly and reliable boatyard. But we were not going in to Lawrenny this evening. We were heading for Black Tar, Llangwm and the wild places beyond.

Above Benton the river broadens and turns left. There is not as much water as formerly, and there are certainly no buoys. Pilotage is a matter of keeping an eye on the chart and the sounder, watching the depth increase then decrease, and tacking briskly when it falls below 2m. We passed through moored boats off Llangwm, a bay with



▲ 'Woods of gnarled oaks sweep down to the jade-green water, which is here known as the Cleddau Ddu - the Black Cleddau'

▼ 'The white and wizardly tower of Benton Castle peers out of the trees'



up to heights only achievable on the biggest tides. The world is quiet here, except for the yodel of curlews and the clatter of a raft of ducks making a sharp exit from a slough. The wind had fallen light; the tide was still making, and the sun was low, lighting up the mooring buoys until they glowed fluorescent against the greenish-grey rock of the cliffs. Something huge churned the water and vanished. A salmon, for sure; the Cleddau has been one of the great salmon fisheries of the world since fishermen used dugout canoes and nets of twisted flax. We moved on, slow and gentle, towards the place on the chart where the river splits in two like a mermaid's tail, forming the eastern and the western Cleddau.

The channel is very narrow here, but we were near high tide, and there was plenty of water. We wandered to the east to cut the corner. The sounder read 1.7, 1.6. I shoved the tiller over. The boom came across, I hauled the clew of the jib down to leeward and we set off on the new tack, green trees growing beyond the pulpit. The sounder read 1.7, 1.9. Then, suddenly, 1.2, 1.1 and down to 0.9. We must have sailed up a creek, and were now crossing the high ground between it and the channel. The Corribee draws slightly less than 0.9m. It was only mud down there and the tide was still flowing, but I was tired, and it had been a longish day, and I had no desire to go aground. I found I was saying as much to myself, out loud.

## A cloud of curlews

Then the readings were growing again, and we were round the corner, heading past Landshipping. There is not a lot of water up here. All the boats on the moorings by the village have bilge keels or lifting keels. This is not fin-keel territory. The wind had made something like its 50th pirouette of the day, and was now dead astern. We moved very, very slowly through the moorings. A cloud of curlews made an orchestra of calls. Nothing moved except the birds and a bass fisherman casting. Ahead, an 18th century house gazed grey and quiet down a long lane of brown water.

The moored boats of Landshipping shrank to the size of bath toys. We moved on and on. Blackpool, the limit of navigation, was a couple of miles upstream. The chart was reticent about depths. With a fin keel, this was far enough. Walk the tiller round. Eye the sounder and calculate, rule of thumb. There would be a bit less than a metre of water at low tide, but we could sit on the keel for an hour or so. The boat came head to what wind there was. I hauled on the furling line. The jib came in. I walked forward, hung the anchor over the roller, waited for the boat to start moving astern with the tide, and dropped, three times the depth at HW and another time for luck.

We were alone with the curlews. It was time to do something about the engine. Maybe tomorrow.



## PBO New Gear

**Laura Hodgetts reports on the latest marine products** 

## **New kit from Navico**

Navico, which owns electronics brands Lowrance, Simrad and B&G, showed off their new kit at a press event in early 2015. With a new product launched every 20 days in 2014, there was plenty of innovative electronic equipment to see. Ben Meakins reports



83/200kHz broadband sounder and an LED-backlit display with 240x360 pixel resolution. It provides up to 60° of conical coverage, and costs £102. Next up was the Outboard Pilot, an autopilot for outboard engines that has been designed for use with their

HDS series of plotter displays, and is



Elite-3x

Compatible with hydraulic and cable-steered outboard systems, it is for single outboards on boats 30ft or less and can steer to a compass heading, a waypoint or a route, and can follow pre-set turn patterns (like U-turns or zig-zags) to find good fishing areas, or stick to the edge of seabed features such as reefs. Current users of HDS screens can download a free software update to make it all work. Hydraulic and cable-steer versions cost £1,025 and £1,794 respectively.

controlled via the touch screen.

Arguably most impressive from a technological point of view was the MotorGuide Xi5 trolling motor, which, when linked to a plotter, 'moors' the boat to a set GPS position, allowing fishermen to fish in a location without having to drop an anchor. It can also

'creep' and move the boat to a new anchor position via a touch on a compatible HDS plotter.

Finally, the HDS Gen3 display is available in 7, 9 and 12in models and features a faster processor, enhanced menus and a brighter, sunlight-viewable screen. It is compatible with Navionics and C-Map charting, and can even combine the two. The displays cost £1,134, £1,980 and £3,380 respectively.

Navico's GoFree service allows third-party developers to create apps for their products, and users to download apps and updates directly to their plotters. Fellow Navico brands B&G and Simrad have new plotters, radars and remote controls for release later this year: watch this space for our next report. www.navico.com



Lowrance HDS Gen3 display



**Lowrance Outboard Pilot** 

## **Chatham Marine sailing shoes**

Chatham's Mist Aqua Go G2 (lace-up) and Breaker Aqua Go G2 (Velcro) sailing shoes are designed as 'barefoot' styles for water sports enthusiasts. The Aqua Go Footflex System mimics the foot's natural movement and is promised to ensure the ultimate in comfort. The medium-density Phylon EVA compound in the mid-sole gives maximum flexibility and cushioning, while the undulating shape is designed to cup and support the foot during activity.

Lightweight three-ply technical mesh increases airflow to maintain temperature and comfort. The lightweight shoes, to be launched in March, feature a three-layer drainage system which is claimed to allow water to disperse from the interior in less than 10 seconds, and are designed to grip even in wet conditions. Both styles cost £89.

www.chatham.co.uk

MotorGuide



## boatTENT cockpit hood cover/ enclosure

The inflatable boatTENT cockpit hood cover/enclosure has no metallic parts, and takes up little space when stored below deck in a bag. The device can also be used as a bimini top on sunny days as the zippable sides can be added or removed. There is no need to drill fixing points into your deck: after inflation, the tent holds a



shape so it can sit on your cockpit without adjustment, assuming there's no wind. Eleven external and four internal fixing points allow you to attach the adjustable cords to different points on your boat. Six mechanical suction cups create a temporary fixing point on a smooth surface, like the hull, from which you can attach the fixing cords. The boatTENT is designed to be used while at anchor, not while sailing. The manufacturer's current tests show no problems with winds up to 25 knots. Prices start from €649 (£483) for boats under 9.1m (30ft). www.boattent.com





## **Boat Buddy cleaning product relaunch**

Boat Buddy's Marine Surface Wash and RIB Cleaner have been relaunched as reformulated products, which are non-caustic and environmentally responsible, exceeding EU regulations on biodegradability. The Marine Surface Wash (£17.05 for 1lt) is an all-over boat wash, while the RIB Cleaner (£19.50 for 1lt) is designed for cleaning Rigid Inflatable Boat (RIB) tubes. The company has also made all of its packaging recyclable.

For a test of gelcoat cleaners, turn to page 92.

www.boatbuddy.org.uk

## **Seapilot Vector Compact GPS compass**

Said to be the smallest GPS compass in the world, the Seapilot Vector Compact comes in two versions, with NMEA2000 or NMEA0183 output. It is intended to optimise navigational systems such as radars, autopilots and sonars and is designed for easy installation. It is said to withstand multi-path interference problems even in the most difficult environments.

The heading data is claimed to be superior to that from a fluxgate compass with rate sensors, but at similar cost. Heading and other GPS data are given with an update rate of up to 10Hz. The unit has integrated SBAS and DGPS capability (systems to enhance position accuracy from additional satellites or ground stations) and it is equipped with rate gyro sensors that support it during quick changes in direction. If selecting the NMEA0183 version, priced at £878.58 (€990), it comes with a 15m power/data cable and you can configure two NMEA output ports separately from one another. The unit for NMEA2000 connection retails at £789.78 (€890). ■ www.trueheading.se



## Vistal universal all-in-one cleaner

Vistal is designed to both clean and protect boat surfaces. It is biodegradable and kind to the skin. Supplied with its own sponge, it comes as a dry and solid compound: to activate the cleaner, just wipe the dampened sponge across the surface. A coating of natural glycerine is left on the surface to polish and protect it and repel water. A minimal amount of water is needed to apply it. Three tub sizes are available: 500g (£18.95), 800g (£22.95) and a 4kg bucket (£64.95). ■ www.vistal.co.uk

## **HandiMoova trolley**



HandiWorld Ltd claims the HandiMoova is the

world's first all-terrain, off-road trolley. Designed and developed in the UK, the HandiMoova uses innovative and patented technology to help people shift loads of up to 60kg over rough terrain including sand, grass and gravel, and up and down stairs. The clever Camba wheel system involves hemispherical wheels mounted on separate, inclined floating axles so they roll smoothly over uneven surfaces.

Salt-resistant components include an aluminium frame which extends from 800mm to 1,150mm, and marine-grade stainless steel axles. Its plastic tyres are puncture-proof, and it has a telescopic handle and folding load plate and wheels. Coupled with the added accessory of HandiWorld's 135lt waterproof HandiDuffel, the trolley could be useful for sailors transporting kit to and from boats. When folded, the HandiMoova's dimensions are 215mm x 485mm x 800mm.

The HandiMoova costs £99.99 including UK delivery, and comes with a bungee strap and a two-year guarantee. A HandiMoova and HandiDuffel package is available for £129.99.

www.handiworld.com

## Verdict

We were impressed with the HandiMoova's ability to travel unheeded over any terrain, even up and down stairs. The HandiMoova doesn't stop you from feeling the weight of heavy items, but it does mean they can be easily transported. It comes fully assembled and is easy to use and to fold up. Recommended. Laura Hodgetts

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## Spinlock Tiller Extension

Launched in the 1980s, the Spinlock Tiller Extension found fame at the 1988 Royal Lymington Cup match racing series when 'The Stick', as it was referred to, 'performed magnificently' on board all 10 competing Westerly Fulmars. British helmsman Tim Law said: 'I was surprised at how well it survived the hammering we gave it.' He added: 'It's an excellent piece of kit – everybody liked it.'



The tiller extension has evolved to have a more ergonomic handle for precision control and feedback, and a joint with even greater flexibility. However, materials have remained similar: lightweight marine alloys, hard anodised stainless steel and a soft-touch polyurethane handle. It is still engineered to be strong enough to hand-steer a boat like a Transpac 52 Class yacht doing 25 knots in close-quarters racing. Spinlock also offer lengths up to 2m for the largest tiller-steered yachts. The modern version comes in a range of colours. www.spinlock.co.uk

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## FASTNET **XT ISO 150N**

The new Fastnet XT now conforms to both ISO12402 and EN396 standards. Fitted with the UML Pro-Sensor the jacket has a 'buddy' window that indicates to the wearer and other crew members if the gas canister or tablet need replacing. Made in the UK. Colours: Grey or Red.

Fastnet XT Manual £54.99 Fastnet XT Auto £62.99
Fastnet XT Manual Harness £59.99 Fastnet XT Auto Harness





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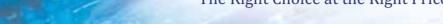
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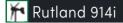
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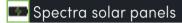
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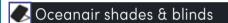
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ow in its seventh year, the PBO Marina Price Guide has become established as an essential reference for boat owners. It provides comprehensive regional listings of annual berths around England, Scotland, Wales, the Channel Islands, Shetland Islands, Northern Ireland and the Republic of Ireland.

We also provide a national ranking so you can see how your marina's charges compare across the country, but bear in mind that the level of facilities and services offered by each marina may also differ greatly.

We list only walk-ashore berths with mast-up access from the coast.

In order to compare the prices provided by hundreds of marinas, many with differing pricing structures, we requested berthing costs for yachts 7m, 10m and 13m LOA, and worked out an average per-metre price. The sums we quote, which include VAT, may not be exact for your particular boat but are intended to be representative overall. Rankings start at 1 for the most expensive. To help you plan your access we give the depth of water at the pontoon and in the approaches at Mean Low Water Springs, which allows us to include drying marinas.

#### **Exciting developments**

Work will be completed in July 2015 on the new £8.5million Pwllheli Sailing Academy, with a brand new purpose-built facilities building, compounds for dinghy storage, a quay wall with pillar cranes for lifting and launching sportsboats plus 100 pontoon berths for keelboat events and for accommodating visiting vessels. The All Wales Boat Show will be held in Pwllheli from 8-10 May.

Premier Marinas invested more than £17million on its eight South Coast marinas in 2014/15 to improve infrastructure and services. This has seen the construction of two new boatyard complexes at Swanwick and Chichester, each with purpose-built workshops for marine services and marine retail. All Premier marinas now have an updated WiFi network, and there are new luxury facilities at several sites. There have also been major investments in pontoons, security technology, a new fuel berth and new dry stacks at Swanwick, Falmouth and Gosport.

At the time of going to press, Aberystwyth Marina (Y Lanfa) in Wales was in the process of being sold to the Cardiff Marine Group,

THE **PBO** 2015 starry night over Lymington Yacht Haver 267 listings compared and compiled by Laura Hodgetts while in Scotland, Campbeltown Meanwhile in the Republic of luxury toilets, showers and laundry

while in Scotland, Campbeltown Loch Berthing Co had transferred its assets to Argyll & Bute Council, which is constructing an improved berthing facility on the same site.

Last year, marina giant MDL added 20 more marinas to its network, offering members an MDL Freedom Berthing package with complimentary stays available at more than 90 marinas around the UK and Europe plus extra rewards, benefits and savings, such as discounts on boatyard services and fuel at cost.

Meanwhile in the Republic of Ireland, Kilrush Marina – now under new management – has seen all of its facilities modernised and upgraded, its lock gates automated for the 2015 season, a channel dredged and a new 24-hour self-service diesel facility. The Three Sisters Marina has changed its name to New Ross Marina and is now overseen by Wexford County Council.

On the South Coast, Emsworth Yacht Harbour underwent pontoon replacement in January 2015, while luxury toilets, showers and laundr with 24-hour access are new for 2015 at Lymington Yacht Haven. The major extension and refurbishment of the Haven Bar and restaurant is also complete.

In the South West, Plymouth Yacht Haven's brand new luxury showers and washroom facilities are due to open in April 2015.

On the East Coast, Ipswich Haven Marina has been fitted with new security gates. Additionally, the toilet and shower block have been refurbished.

## **South Coast and the Isle of Wight**



National ranking	Regional ranking	TYHA/TransEurope	Marina name	Annual average price per metre (£)	Harbour dues	Number of berths	Maximum berth depth (m) at MLWS	Depth (m) in the approaches at MLWS	Telephone	Water/Electric	Toilets/Shower	Laundry/WiFi	Diesel/Petrol	Gas/Chandlery	Lift-out tonnage
71	41	-N	Bembridge Harbour	360.00	Υ	350	2	2	01983 872828	YY	YY	YY	<<	Υ<	8
67	40	-Y	Birdham Pool Marina	367.92	N	265	1.9	1	01243 512310	SS	YY	YY	YY	<<	16
11	8	5Y	Buckler's Hard YH	624.00	Υ	116	2.5	1	01590 616200	YY	YY	YY	YY	YY	35
38	28	-N	Christchurch Marine	451.73	Υ	110	1.1	0.4	01202 483250	YY	YY	NN	YN	YY	10
30	24	5N	Cobb's Quay Marina	494.02	N	850	2.5	2.5	01202 674299	YY	YY	YY	YY	YY	25
43	33	-N	Cowes Yacht Haven	442.00	Υ	35	3.8	5	01983 299975	YY	YY	YY	<<	YY	30
51	35	-N	Davis's Boatyard	411.71	N	94	>2.5	>2.5	01202 674349	YY	YY	NY	YY	YY	12
21	17	-N	Deacons Boatyard	551.67	Υ	112	2.3	3	02380 402253	YY	YY	NY	<<	<y< td=""><td>20</td></y<>	20
19	15	-N	Dorset Lake Shipyard	558.77	N	46	2	2	01202 674531	YY	YY	NO	NN	NN	50
59	38	-N	East Cowes Marina	396.82	Υ	350	3.5	1.7	01983 293983	YY	YY	YY	<<	Υ<	
26	20	-N	Elephant Boatyard	504.15	N	40	3	3	02380 403268	YY	YN	NN	<<	<<	25
73	42	3N	Emsworth YH	358.33	N	222	<2	0	01243 377727	YY	YY	YY	Υ<	YY	50
234	55	-N	Fareham Marina	102.32	Υ	50	3	3	01329 233255	YY	NN	NN	<<	N<	
36	26	4N	Gunwharf Quays	472.00	Υ	55	5.5	5.5	02392 836732	YY	YY	YY	<<	<<	
3	1	5N	Hamble Point Marina	717.93	Υ	230	2.5	2.5	02380 452464	YY	YY	YY	<<	<y< td=""><td>75</td></y<>	75
8	5	-N	Hamble Yacht Services	637.93	Υ	35	4	4	02380 454111	YY	YY	NY	<<	<<	80
37	27	-N	Haslar Marina	470.25	Υ	650	6	6	02392 601201	YY	YY	YY	<<	Υ<	200
14	11	-N	Haven Quay, Lymington	590.00	N	4	2.2	2	01590 677072	YY	YY	NN	<<	<<	5
27	21	5N	Hythe Marina Village	497.80	N	206	2.5	2.5	02380 207073	YY	YY	YY	YY	YN	40
103	45	-N	Island Harbour	300.00	Υ	200	1	1.75	01983 539994	YY	YY	YY	<<	YY	50
114	47	-N	Itchen Marina	278.80	N	80	0	2	02380 631500	YY	YY	NN	Υ<	<<	70
195	53	-N	Kemps Quay	169.18	Υ	250	2.3	1	02380 632323	YN	YY	NN	N<	<<	8
13	10	-N	Lymington Marina	590.55	N	285	2.5	3	01590 647405	YY	YY	YY	YY	Y<	75
17	13	5N	Lymington YH	566.54	N	600	3	2.5	01590 677071	ΥY	YY	YY	YY	YY	50
7	4	5N	Mercury Yacht Harbour	653.60	Υ	360	2.5	3	02380 455994	YY	YY	YY	<<	YY	20
18	14	5N	Northney Marina	564.45	N	228	2.5	2.5	02392 466321	ΥY	YY	YY	YN	Υ<	35
64	39	-N	Ocean Quay Marina	375.00	Υ	50	2.5	3	02380 235099	YY	YY	NO	<<	Υ<	
20	16	4N	Ocean Village Marina	555.05	N	375	2.5	2.5	02380 229385	ΥΥ	YY	YY	<<	YN	

National ranking	Regional ranking	TYHA/TransEurope	Marina name	Annual average price per metre $(\mathfrak{E})$	Harbour dues	Number of berths	Maximum berth depth (m) at MLWS	Depth (m) in the approaches at MLWS	Telephone	Water/Electric	Toilets/Shower	Laundry/WiFi	Diesel/Petrol	Gas/Chandlery	Lift-out tonnage
5	3	5Y	Poole Quay Boat Haven	695.00	N	30	4.5	4.5	01202 649488	YY	YY	YY	<<	<<	
4	2	5N	Port Hamble Marina	707.73	Υ	310	2.5	2.5	02380 452741	YY	YY	YY	YY	YY	
15	12	5N	Port Of Poole Marina	575.00	N	75	7	10	01202 660120	YY	YY	YY	<<	<<	
41	31	5N	Portland Marina	443.00	Υ	280	5	5	08454 302012	YY	YY	YY	YY	YY	260
173	52	-N	Portsmouth MEng	195.62	Υ	130	0	0	01329 232854	YS	YY	NO	NN	N<	10
39	29	5N	Premier Chichester	450.92	N	1080	1	0.75	01243 512731	YY	YY	YY	YY	YY	65
28	22	5N	Premier Gosport	494.54	Υ	522	3.5	5	02392 524811	YY	YY	YY	YY	YY	12
28	22	5N	Premier Port Solent	494.54	N	390	2.5	2.3	02392 210765	YY	YY	YY	YY	YY	40
42	32	4N	Premier Southsea	442.20	N	318	2.5	1.3	02392 822719	YY	YY	YY	YY	YY	25
172	51	-N	Quay Lane Boatyard	197.21	Υ	60	0	0	02392 524214	YY	YN	NN	<<	YY	12
109	46	-N	Ridge Wharf YC	288.78	N	122	1.5	1.1	01929 552650	SS	YY	YN	YY	YY	18
45	34	-Y	Royal Clarence Marina	435.50	Υ	250	5.2	5.2	02392 523523	ΥΥ	YY	YY	<<	<<	
231	54	-N	Ryde Harbour	109.00	Υ	100	0	0	01983 613879	YN	YY	YN	<<	<<	
9	6	5N	Salterns Marina	637.16	N	285	2	2	01202 709971	YY	YY	YY	YY	YY	45
23	19	-N	Saxon Wharf	536.94	N	50	2.5	2.5	02380 339490	YY	YY	YY	<<	<<	200
33	25	5N	Shamrock Quay	486.30	N	255	2.5	2.5	02380 229461	YY	YY	YY	<<	YY	75
53	36	-N	Shepards Wharf	408.42	Υ	35	2	3	01983 297821	SY	YY	NY	<<	Y<	5
22	18	4N	Sparkes Marina	541.60	N	140	2.5	2.5	02392 463572	ΥY	YY	YY	YY	YN	16
10	7	-N	Swanwick (Hamble)	626.20	N	278	2	2	01489 884081	YY	YY	YY	YY	YY	65
135	49	-N	The Hayling Yacht Co	249.51	N	157	2	4	02392 463592	YS	YY	YY	NN	NY	30
122	48	-N	Thornham Marina	263.53	N	81	0.5	0.5	01243 375335	YY	YY	NY	<<	<<	12
54	37	4Y	Town Quay Marina	401.14	Υ	130	3.5	9	02380 234397	YY	YY	YY	<<	Y<	
12	9	-Y	Universal Marina	604.79	Υ	249	3	>2.5	01489 574272	YY	YY	YY	<<	YY	75
89	44	-N	Weymouth Harbour	324.17	Υ	400	3.5	5	01305 838423	YS	YY	YN	Y<	<y< td=""><td></td></y<>	
40	30	-N	Weymouth Marina	447.33	Υ	300	2	2	01305 767576	YY	YY	YY	<<	<<	
138	50	-N	WicorMarine YH	244.00	Υ	25	2.2	>3	01329 237112	SS	YY	NO	Y<	ΥΥ	12
76	43	-N	Yarmouth Harbour	345.88	Υ	50	2	2	01983 760321	YY	YY	YY	YY	Y<	5

#### **PRICE GUIDE NOTES**

Limehouse Basin and Poplar Dock marinas jointly top the PBO Price Guide as 'most expensive' marinas for the second year running, due to BWML's new pricing structure which came into play last year, changing the per-metre rate to a residential mooring fee. This year's

£6,939 fee for boats up to 13m is cheaper than last year's £9,450 figure but has still pushed up the South East region's overall prices.

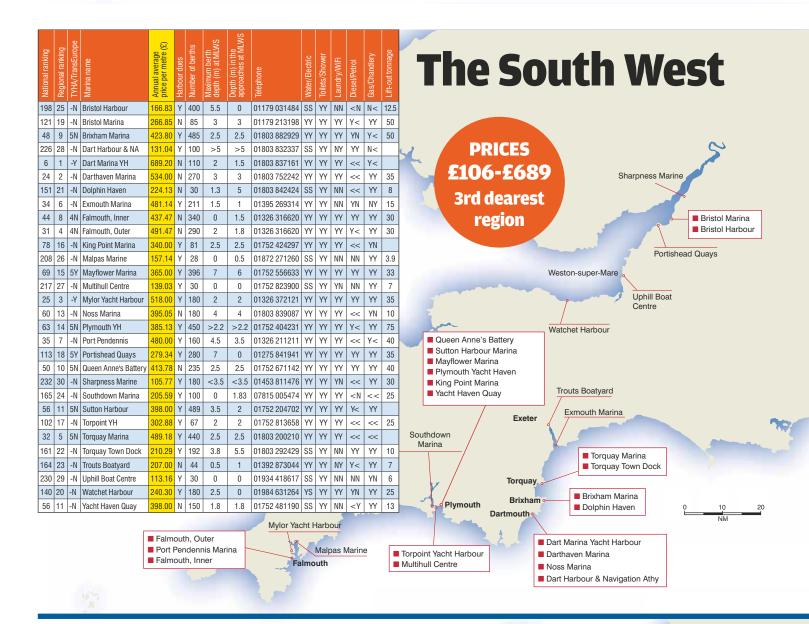
Contrastingly, the Shetland Islands are again ranked cheapest out of the 12 regions, due to their unique annual berthing system where berths are owned or reserved for years by local residents who pay an upfront fee and then smaller annual maintenance costs. Similarly, annual berths at St Peter Port in Guernsey are just for island residents.

We welcome Plymouth's King Point Marina and Yacht Haven Quay to the PBO guide for the first time. If your marina meets our criteria but is not listed, please get in touch. Details submitted were accurate at the time of going to press: a few marinas were anticipating new tariffs to be introduced for the new financial year.

Our online guide at www.pbo. co.uk/marina-guide also includes extra comments from the marinas.

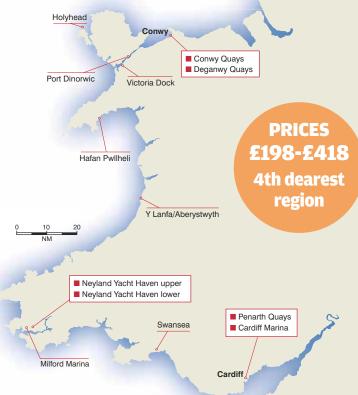
**PRICE TABLE NOTES** Rates are for the 2015 season; Prices are the average per metre (based on prices for 7m, 10m and 13m yachts); all prices include VAT where applicable. Republic of Ireland prices are ranked based on a conversion rate of £1 = €1.2, but listed in euros.; **Y** = yes, **S** = some berths, **N** = no; WiFi: **Y** = at berth, **O** = onsite, **N** = no; For services: < = within a mile; Drying heights represented by **0**; For depths: > = greater than, < = less than; Where the approach depth is considerably less than the berth depth, it may be the marina has a sill or lock – please check with the marina operator. TYHA: - denotes not rated.





## Wales

National ranking	Regional ranking	TYHA/TransEurope	Marina name	Annual average price per metre (£)	Harbour dues	Number of berths	Maximum berth depth (m) at MLWS	Depth (m) in the approaches at MLWS	Telephone	Water/Electric	Toilets/Shower	Laundry/WiFi	Diesel/Petrol	Gas/Chandlery	Lift-out tonnage
141	10	-N	Cardiff Marina	240.00	Υ	350	3	1.8	02920 396078	YY	YY	Y0	Υ<	<<	20
62	2	5Y	Conwy Quays Marina	389.03	Υ	500	2.5	0.5	01492 593000	YS	YY	YY	YY	YY	30
49	1	5Y	Deganwy Quays	418.28	Υ	170	2.5	0.5	01492 576888	YY	YY	YY	YY	<<	20
72	3	-N	Hafan Pwllheli	359.52	Υ	420	2.5	0.5	01758 701219	YY	YY	YY	YY	YY	50
93	4	-N	Holyhead Marina	318.00	Υ	350	<4.5	>3.5	01407 764242	YY	YY	Y0	Υ<	YY	15
137	9	4N	Milford Marina	246.00	Υ	328	>7	1.1	01646 696312	YY	YY	Y0	YN	YY	12
110	8	-Y	Neyland YH, Lower	287.62	Υ	420	2	2	01646 601601	YY	YY	YY	YY	YY	35
157	12	-Y	Neyland YH, Upper	214.50	Υ	420	2	2	01646 601601	YY	YY	YY	YY	YY	35
105	6	5Y	Penarth Quays Marina	291.52	Υ	340	3.3	2	02920 705021	YY	YY	YY	YY	YY	20
107	7	-N	Port Dinorwic	290.00	Υ	140	2	0	01248 671500	YY	YY	YY	YN	YY	15
171	13	-N	Swansea Marina	197.80	Υ	550	3	3	01792 470310	SS	YY	YY	YN	YY	20
146	11	-N	Victoria Dock	230.97	Υ	100	2.2	0	01286 672346	ΥY	YY	Y0	<<	<y< td=""><td>12</td></y<>	12
97	5	-N	Y Lanfa (Aberystwyth)	310.27	Υ	155	2.2	0.4	01970 611422	YY	YY	YY	Υ<	YY	11





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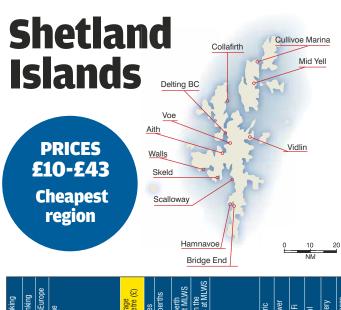
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# **The North East**







National ranking	Regional ranking	TYHA/TransEurope	Marina name	Annual average price per metre (£)	Harbour dues	Number of berths	Maximum berth depth (m) at MLWS	Depth (m) in the approaches at MLW	Telephone	Water/Electric	Toilets/Shower	Laundry/WiFi	Diesel/Petrol	Gas/Chandlery	Lift-out tonnage
257	1	-N	Aith Marina	43.05	Υ	38	2.4	1.2	01595 810378	ΥY	YY	NN	YN	NN	8
262	6	-N	Bridge End, South Voe	14.92	N	24	4	4	01595 859332	YY	NN	NN	NN	NN	
258	2	-N	Collafirth Marina	40.00	Υ	9	1.8	8	01806 533288	YN	YY	YN	NN	NN	
263	7	-N	Cullivoe Marina	14.29	Υ	13	1.3	1.2	01957 744262	NN	NN	NN	<<	<n< td=""><td></td></n<>	
260	4	-N	Delting Boating Club	20.59	Υ	2	2	2	01806 522524	YY	YY	Y0	Υ<	N<	5
265	9	-N	Hamnavoe Marina	12.79	N	50	3	4	01595 881253	YY	YN	NN	<<	NN	
266	10	-N	Mid Yell Marina	10.66	Υ	36	1.9	2	01957 702317	YY	NN	NN	<<	NN	
261	5	-N	Scalloway	18.39	Υ	20	7	8.7	01595 744221	SS	YY	NO	YN	N<	250
264	8	-N	Skeld Marina	13.86	Υ	53	2.5	2.5	01595 860287	YY	YY	YY	Υ<	<n< td=""><td>12</td></n<>	12
259	3	-N	Vidlin Marina	21.32	N	43	1.7	1.7	01806 577326	YY	YN	NN	NN	NN	
267	11	-N	Walls Marina	9.71	N	30	2	1.5	01595 809311	YY	YN	NY	<<	N<	
1		-									No.	-			



Scalloway Marina offers views of the famous 17th century castle

# **The North West**

National ranking	Regional ranking	TYHA/TransEurope	Marina name	Annual average price per metre (£)	Harbour dues	Number of berths	Maximum berth depth (m) at MLWS	Depth (m) in the approaches at MLWS	Telephone	Water/Electric	Toilets/Shower	Laundry/WiFi	Diesel/Petrol	Gas/Chandlery	Lift-out tonnage
202	8	-N	Douglas Marina	162.18	Υ	130	2.5	0	01624 687543	SS	YY	NO	<<	<y< td=""><td>12</td></y<>	12
227	10	-N	Douglas Marine	130.00	Υ	50	1.8	0	01772 812462	SN	YY	NN	Υ<	<y< td=""><td>20</td></y<>	20
142	3	4Y	Fleetwood Haven	237.87	N	420	3	1.5	01253 879062	YY	YY	Y0	YN	YN	75
192	7	4N	Glasson Basin Marina	175.68	N	170	3	0	01524 751491	YY	YY	YN	YN	YY	50
85	1	-Y	Liverpool Marina	331.70	Υ	340	5	2.5	01517 076777	SS	YY	Y0	Υ<	<y< td=""><td>60</td></y<>	60
180	5	3N	Maryport Marina	190.00	Υ	190	5.6	0	01900 814431	YY	YY	YY	Υ<	YN	25
203	9	-N	Peel Marina	162.17	Υ	120	2.5	0	01624 686612	YY	YY	NO	Υ<	<n< td=""><td>12</td></n<>	12
183	6	-N	Preston Marina	189.00	Υ	125	4	0	01772 733595	YY	YY	Y0	Υ<	YY	12.5
128	2	-Y	Whitehaven Queens	255.00	Υ	220	7	0	01946 692435	YY	YY	YY	Υ<	YN	45
163	4	-Y	Whitehaven South	207.73	Υ	180	7	0	01946 692435	YY	YY	Y0	Υ<	YN	45







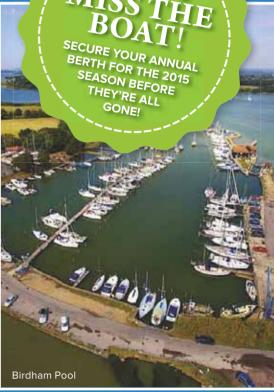
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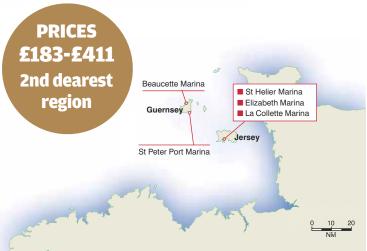
**Scotland** (including the Orkneys)

87   5   N   Ardfern Yacht Centre   330.00   Y   90   5   5   01852 500247   YY   YY   YY   YY   YY   41	National ranking	Regional ranking	TYHA/TransEurope	Marina name	Annual average price per metre (£)	Harbour dues	Number of berths	Maximum berth depth (m) at MLWS	Depth (m) in the approaches at MLWS	Telephone	Water/Electric	Toilets/Shower	Laundry/WiFi	Diesel/Petrol	Gas/Chandlery	Lift-out tonnage
87   5   N   Ardfern Yacht Centre   330.00   Y   90   5   5   01852 500247   YY   YY   YY   YY   YY   44	253	40	-N	Anstruther Harbour	62.20	Υ	102	0	0	01333 310836	SY	YY	NN	NN	<n< td=""><td></td></n<>	
219   24   N   Banff Harbour Marina   137.34   Y   74   1.8   0.8   01261 815544   YY   YY   V   V   C   C	228	26	-N	Arbroath Harbour	126.00	Υ	59	2.5	1	01241 872166	YY	YY	YN	Υ<	<<	120
190	87	5	-N	Ardfern Yacht Centre	330.00	Υ	90	5	5	01852 500247	YY	YY	YY	YN	YY	40
200   21   N   Caley Marina   155.00   N   70   2.4   2.4   01463 236539   Y   Y   N   Y   C   C   T   244   34   N   Campbeltown Loch BC   90.00   Y   30   2   2   07798 524821   Y   Y   Y   V   C   C   C   S   S   S   S   S   S   S	219	24	-N	Banff Harbour Marina	137.34	Υ	74	1.8	0.8	01261 815544	YY	YY	YN	<<	<<	
244         34         -N. Campbeltown Loch BC         90.00         Y         30         2         2         07798 524821         YY         YY         Y         X         2         1         07798 524821         YY         YY <td>190</td> <td>19</td> <td>-N</td> <td>Bellanoch Moorings</td> <td>177.46</td> <td>N</td> <td>35</td> <td>2.4</td> <td>2.4</td> <td>01546 603210</td> <td>YY</td> <td>YY</td> <td>NO</td> <td><n< td=""><td>&lt;&lt;</td><td></td></n<></td>	190	19	-N	Bellanoch Moorings	177.46	N	35	2.4	2.4	01546 603210	YY	YY	NO	<n< td=""><td>&lt;&lt;</td><td></td></n<>	<<	
91   6   -N   Clyde Marina   321.00   Y   280   4.5   10   01294 607077   YY   YY   YY   YY   YY   YY   YY	209	21	-N	Caley Marina	155.00	N	70	2.4	2.4	01463 236539	YY	YY	NY	Υ<	<y< td=""><td>17</td></y<>	17
94   7   -N   Craobh Marina   314.00   N   >250   >8   4   01852 500222   YY   YY   YY   YY   YY   YY   YY	244	34	-N	Campbeltown Loch BC	90.00	Υ	30	2	2	07798 524821	YY	YY	YN	<<	<<	
81         3         5h         Dunstaffnage Marina         337.25         Y         180         5         5         01631 566555         YY         YY         YY         Y         YY         Y         YY         <	91	6	-N	Clyde Marina	321.00	Υ	280	4.5	10	01294 607077	YY	YY	YY	Υ<	YY	50
181   17   N   Eyemouth Harbour   189.58   Y   40   1.2   2.4   018907 52494   YY   YY   YY   YY   XY   XY   XY   X	94	7	-N	Craobh Marina	314.00	N	>250	>8	4	01852 500222	YY	YY	YY	YN	YY	30
245         35         -N. Gairloch Harbour         88.85         Y         20         3.5         10         01445 712140         SS         YY         NN         Y         < N	81	3	5N	Dunstaffnage Marina	337.25	Υ	180	5	5	01631 566555	YY	YY	Y0	Υ<	YY	40
249   37   N   Helmsdale Harbour   83.74   Y   30   1   1   01431 821692   SS   YY   NN   YN   N   N   106   10   N   Holy Loch Marina   291.01   Y   250   6   20   01369 701800   YY   YY   YY   YY   YY   Y   Y   Y	181	17	-N	Eyemouth Harbour	189.58	Υ	40	1.2	2.4	018907 52494	YY	YY	YY	Υ<	<y< td=""><td></td></y<>	
106   10   -N   Holy Loch Marina   291.01   Y   250   6   20   01369 701800   YY   YY   YY   YY   YY   YZ   174   16   4N   Inverness Marina   195.00   Y   150   3   3   01463 220501   YY   YY   YY   YY   YY   YY   YY	245	35	-N	Gairloch Harbour	89.85	Υ	20	3.5	10	01445 712140	SS	YY	NN	Υ<	<n< td=""><td></td></n<>	
174   16   4N   Inverness Marina   195.00   Y   150   3   3   01463 220501   YY   YY   YY   Y   < < 4   4   125   12   -N   James Watt Dock   260.83   Y   120   5.1   8   01475 729838   YY   YY   YY   YY   YY   Y   125   13   8   01475 729838   YY   YY   YY   YY   YY   YY   YY	249	37	-N	Helmsdale Harbour	83.74	Υ	30	1	1	01431 821692	SS	YY	NN	YN	<n< td=""><td></td></n<>	
125   12   -N   James Watt Dock   260.83   Y   120   5.1   8   01475 729838   YY   YY   YY   YY   YY   YY   1250   38   -N   Kinlochbervie Harbour   80.48   Y   30   4   7   01971 521235   SS   YY   YO   Y   Y   YY   YY   50   Y   Y   YY   Y	106	10	-N	Holy Loch Marina	291.01	Υ	250	6	20	01369 701800	YY	YY	Y0	YY	YY	23
250   38   -N   Kinlochbervie Harbour   80.48   Y   30   4   7   01971 521235   SS   YY   YO   Y<   VY   O174   2   -N   Kip Marina   351.67   Y   600   3.4   4   01475 521485   YY   YY   YY   YY   Y   Y   Y   Y	174	16	4N	Inverness Marina	195.00	Υ	150	3	3	01463 220501	YY	YY	YY	Υ<	<<	45
T4   2   -N   Kip Marina   351.67   Y   600   3.4   4   01475 521485   YY   YY   YY   YY   Y   Y   Y   Y	125	12	-N	James Watt Dock	260.83	Υ	120	5.1	8	01475 729838	YY	YY	YY	YY	YY	12
248         36         -N         Kirkcudbright         84.00         Y         30         3.5         0         01557 331135         YY         YY         YN         <            236         29         -N         Kirkwall Marina         100.00         Y         95         3         5         01856 871313         YY         YY         NY         YY         YY <t< td=""><td>250</td><td>38</td><td>-N</td><td>Kinlochbervie Harbour</td><td>80.48</td><td>Υ</td><td>30</td><td>4</td><td>7</td><td>01971 521235</td><td>SS</td><td>YY</td><td>Y0</td><td>Y&lt;</td><td><y< td=""><td>0.5</td></y<></td></t<>	250	38	-N	Kinlochbervie Harbour	80.48	Υ	30	4	7	01971 521235	SS	YY	Y0	Y<	<y< td=""><td>0.5</td></y<>	0.5
236         29         -N. Kirkwall Marina         100.00         Y         95         3         5         01856 871313         YY         YY         YY         Y	74	2	-N	Kip Marina	351.67	Υ	600	3.4	4	01475 521485	YY	YY	YY	Υ<	YY	50
66         1         5N         Largs Yacht Haven         371.40         Y         730         3         3         01475 675333         YY         <	248	36	-N	Kirkcudbright	84.00	Υ	30	3.5	0	01557 331135	YY	YY	YN	<<	<<	
250   38   -N   Lochinver Harbour   80.48   Y   30   5   8   01571 844265   YY   YY   YO   Y   < Y   22   199   20   -N   Lossiemouth   166.80   Y   102   1.5   1.8   01343 813066   YY   YY   YY   < < N   11   243   33   -N   Nairn Harbour   94.05   Y   84   0.5   0.5   0.667 456008   SS   YY   NN   YY   YN   YN   YN   YN	236	29	-N	Kirkwall Marina	100.00	Υ	95	3	5	01856 871313	YY	YY	NY	Υ<	<<	
199   20	66	1	5N	Largs Yacht Haven	371.40	Υ	730	3	3	01475 675333	YY	YY	YY	YY	YY	70
243         33         -N         Nairn Harbour         94.05         Y         84         0.5         0.5         01667 456008         SS         YY         NN         YY         YN         199         -N         Oban Marina & YS         307.13         Y         115         >10         >10         01631 565333         YY         YY <td>250</td> <td>38</td> <td>-N</td> <td>Lochinver Harbour</td> <td>80.48</td> <td>Υ</td> <td>30</td> <td>5</td> <td>8</td> <td>01571 844265</td> <td>YY</td> <td>YY</td> <td>Y0</td> <td>Y&lt;</td> <td><y< td=""><td>23</td></y<></td>	250	38	-N	Lochinver Harbour	80.48	Υ	30	5	8	01571 844265	YY	YY	Y0	Y<	<y< td=""><td>23</td></y<>	23
99         9         -N         Oban Marina & YS         307.13         Y         115         >10         >10         01631 565333         Y	199	20	-N	Lossiemouth	166.80	Υ	102	1.5	1.8	01343 813066	YY	YY	YY	<<	<n< td=""><td>15</td></n<>	15
240         32         -N         Peterhead Bay Marina         98.41         Y         160         2.4         2.3         01779 477868         YY         YY         YO         Y         YN         77           145         14         -N         Port Bannatyne Marina         231.67         Y         108         2.5         2.5         01700 503116         YY         YY         YY         NN         YY         11           124         11         4N         Port Edgar Marina         261.00         Y         300         2         2         01313 313330         YY	243	33	-N	Nairn Harbour	94.05	Υ	84	0.5	0.5	01667 456008	SS	YY	NN	YY	YN	
145         14         -N         Port Bannatyne Marina         231.67         Y         108         2.5         2.5         01700 503116         YY         YY         YY         NN         YY         11         124         11         4N         Port Edgar Marina         261.00         Y         300         2         2         01313 313330         YY         YY <td< td=""><td>99</td><td>9</td><td>-N</td><td>Oban Marina &amp; YS</td><td>307.13</td><td>Υ</td><td>115</td><td>&gt;10</td><td>&gt;10</td><td>01631 565333</td><td>YY</td><td>YY</td><td>YY</td><td>Υ&lt;</td><td>YY</td><td>50</td></td<>	99	9	-N	Oban Marina & YS	307.13	Υ	115	>10	>10	01631 565333	YY	YY	YY	Υ<	YY	50
124         11         4N         Port Edgar Marina         261.00         Y         300         2         2         01313 313330         YY	240	32	-N	Peterhead Bay Marina	98.41	Υ	160	2.4	2.3	01779 477868	YY	YY	Y0	Υ<	YN	7
126         13         5N         Portavadie Marina         259.15         Y         230         12         20+         01700 811075         YY	145	14	-N	Port Bannatyne Marina	231.67	Υ	108	2.5	2.5	01700 503116	YY	YY	YY	NN	YY	15
82     4     -Y     Rhu Marina     336.93     Y     210     12     12     01436 820238     YY	124	11	4N	Port Edgar Marina	261.00	Υ	300	2	2	01313 313330	YY	YY	YY	Υ<	YY	25
166         15         -N         Sandpoint Marina         204.00         Y         30         1.5         2         01389 762396         YY         YY         NN         Y         < N         4           211         23         -N         Seaport Marina         153.00         Y         80         4.1         1.4         01463 725500         YY         YY         YO         Y         <	126	13	5N	Portavadie Marina	259.15	Υ	230	12	20+	01700 811075	YY	YY	YY	YY	YY	12
211     23     -N     Seaport Marina     153.00     Y     80     4.1     1.4     01463 725500     YY     YY     YO     Y     <<	82	4	-Y	Rhu Marina	336.93	Υ	210	12	12	01436 820238	YY	YY	YY	YN	YY	35
210     22     -N     Stornoway Harbour     153.60     Y     80     2     3     01851 702688     YY     YY     YY     YY     < N	166	15	-N	Sandpoint Marina	204.00	Υ	30	1.5	2	01389 762396	YY	YY	NN	Y<	<n< td=""><td>40</td></n<>	40
235 28 -N Stranraer Harbour 101.93 Y 59 3 2.7 01776 707500 YY YY YN << < N 236 29 -N Stromness Marina 100.00 Y 72 3 5 01856 871313 YY YY YY Y< <<	211	23	-N	Seaport Marina	153.00	Υ	80	4.1	1.4	01463 725500	ΥΥ	ΥΥ	Y0	Υ<	<<	10
236 29 -N Stromness Marina 100.00 Y 72 3 5 01856 871313 YY YY YY Y< <<	210	22	-N	Stornoway Harbour	153.60	Υ	80	2	3	01851 702688	YY	YY	YY	YY	<n< td=""><td></td></n<>	
236 29 -N Stromness Marina 100.00 Y 72 3 5 01856 871313 YY YY YY Y<	235	28	-N	Stranraer Harbour	101.93	Υ	59	3	2.7	01776 707500	YY	YY	YN	<<	<n< td=""><td></td></n<>	
188 18 -N Tarbert Harbour 178 91 Y 200 8 8 01880 820344 VV VV VN VN VV 11	236	29	-N	Stromness Marina	100.00	Υ	72	3	5		YY	YY	YY	Y<	<<	
1.00   10   10   10   10   10   10   10	188	18	-N	Tarbert Harbour	178.91	Υ	200	8	8	01880 820344	YY	YY	YY	YN	YY	12
96 8 4Y Troon Yacht Haven 311.33 Y 400 3 2.7 01292 315553 YY YY YY YY YY 55	96	8	4Y	Troon Yacht Haven	311.33	Υ	400	3	2.7	01292 315553	YY	YY	YY	Y<	YY	55
236 29 -N Westray Marina 100.00 Y 17 3 5 01856 871313 YY YY NN << < N	236	29	-N	Westray Marina		Υ	17	3	5		YY	YY	NN	<<	<n< td=""><td></td></n<>	
	$\vdash$	25	1N	,		Υ	47	1.5	1.5		YY	YY	YY	Y<	Y<	10
	_					N	72				YY	YY		Υ<		30



# **Channel Islands**

National ranking	Regional ranking	TYHA/TransEurope	Marina name	Annual average price per metre (£)	Harbour dues	Number of berths	Maximum berth depth (m) at MLWS	Depth (m) in the approaches at MLWS	Telephone	Water/Electric	Toilets/Shower	Laundry/WiFi	Diesel/Petrol	Gas/Chandlery	Lift-out tonnage
52	1	-Y	Beaucette Marina	411.33	Υ	100	9	0	01481 245000	YY	YY	YY	Y<	Y<	18
75	4	5N	Elizabeth Marina	350.63	Υ	567	4	0	01534 447708	YY	YY	YY	YY	Y<	64
55	2	5N	La Collette Marina	398.22	Υ	120	3	2	01534 447708	YY	YY	YY	YY	<<	64
70	3	5N	St Helier Marina	363.90	Υ	142	3	2	01534 447708	YY	YY	YY	YY	YY	64
186	5	-N	St Peter Port Marina	182.83	Υ	1200	1.8	2	01481 720229	SS	YY	YY	YY	YY	40





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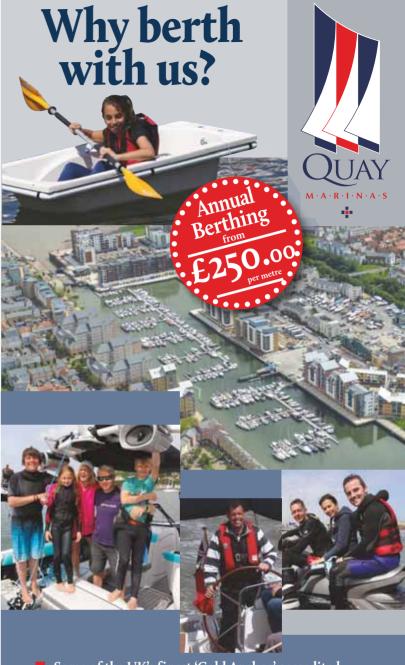
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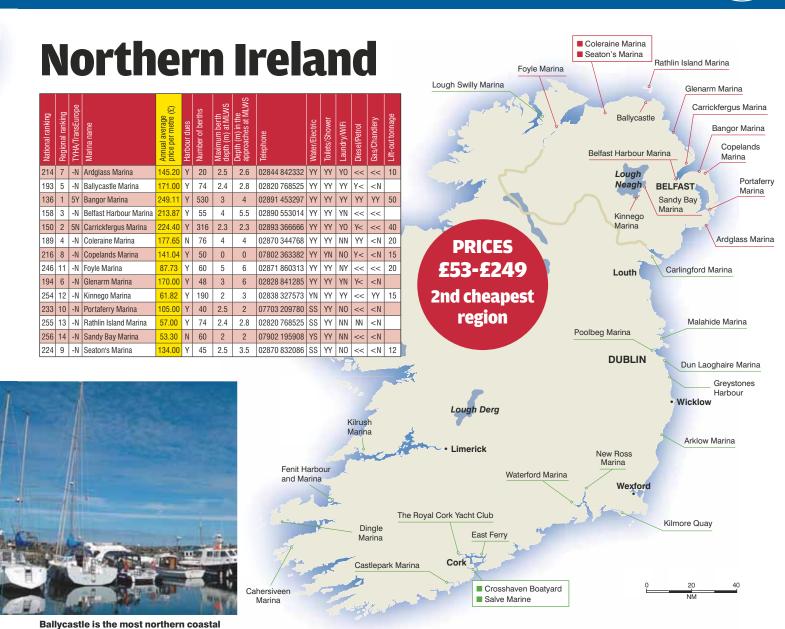
# **The East Coast**

National ranking	Regional ranking	TYHA/TransEurope	Marina name	Annual average price per metre (£)	Harbour dues	Number of berths	Maximum berth depth (m) at MLWS	Depth (m) in the approaches at MLWS	Telephone	Water/Electric	Toilets/Shower	Laundry/WiFi	Diesel/Petrol	Gas/Chandlery	Lift-out tonnage
247	32	-N	Bells Dyke	87.60	Υ	50	1	2	01603 713109	NN	NN	NN	<<	<<	25
185	24	-N	Bells Marina	182.90	Υ	75	1.5	2	01603 713109	YY	YN	NO	<<	<<	25
155	18	-N	Blackwater Marina	215.00	Υ	196	0	0	01621 740264	YY	YY	NO	Y<	YN	18
241	31	-N	Boston Marina	95.93	N	49	1.5	0	01205 364420	YY	YY	NO	Υ<	YY	
115	10	-N	Bradwell Marina	276.03	N	350	2.5	0.3	01621 776235	YS	YY	YY	YY	YN	45
159	20	-N	Bridgemarsh Marine	213.05	N	192	0	0	01621 740414	SS	YY	NN	<<	YN	10
177	23	-N	Broom Marine Services	192.00	Υ	100	2	3	01603 712334	YY	YY	YY	YY	YN	35
160	21	4Y	Brundall Bay Marina	212.33	Υ	329	1	2	01603 717804	YS	YY	YY	NN	YY	22
206	26	-N	Burgh Castle Marina	160.00	N	75	1	0	01493 780331	YY	YY	YN	<<	NN	
77	2	-N	Burnham YH	343.34	N	350	2.5	3	01621 782150	YY	YY	YY	Υ<	YY	30
118	11	-N	Debbage Marina	273.94	Υ	60	0.5	1	01473 601169	YS	YY	Y0	<<	<y< td=""><td>10</td></y<>	10
152	17	-N	Eastwood Marina	221.63	N	10	0.9	0.9	01603 781178	YY	YY	Y0	<<	<n< td=""><td></td></n<>	
120	13	-N	Essex Marina	272.26	N	450	2	>5	01702 258531	YY	YY	YY	YY	YY	70
95	7	-Y	Fambridge YH	312.19	N	250	1.5	1	01621 740370	YY	YY	YY	YY	YY	25
221	29	-N	Fosdyke Yacht Haven	135.00	Υ	50	1.8	0.6	01205 260240	YS	YY	NN	NN	NY	50
101	8	-Y	Fox's Marina Ipswich	303.99	N	70	2	2	01473 689111	YY	YY	NO	Υ<	YY	65
213	27	-N	Heybridge Lock	145.90	Υ	150	0	0	01621 853506	SS	YY	YN	NN	N<	20
80	4	5N	Ipswich Haven Marina	338.82	N	320	6.4	5.6	01473 236644	ΥY	YY	Y0	Υ<	YY	70
134	15	4Y	Lowestoft, Hamilton Dk	252.00	Υ	46	3	4	01502 580300	ΥY	YY	Y0	<n< td=""><td>&lt;&lt;</td><td></td></n<>	<<	
144	16	4Y	Lowestoft, School Rd	234.77	Υ	140	4	3	01502 580300	YY	YY	Y0	YN	Υ<	70
86	6	-N	Neptune Quay	330.44	Υ	150	7.5	5.2	01473 215204	YY	YY	NY	YN	YN	15
78	3	-N	Shotley Marina	340.00	Υ	350	2.5	2.4	01473 788982	YY	YY	Y0	YN	YY	40
174	22	-N	St Olaves Marina	195.00	N	200	1.1	1.4	01493 488500	YY	YY	NN	NN	N<	50
84	5	-N	Suffolk Yacht Harbour	333.16	Υ	550	2	2	01473 659465	ΥY	YY	YY	YY	YY	75
131	14	4N	Tidemill Yacht Harbour	254.00	Υ	200	2.5	0.5	01394 385745	YY	YY	Y0	YN	YY	15
111	9	-N	Titchmarsh Marina	285.34	Υ	420	2	1.3	01255 672185	YY	YY	Y0	YN	YY	35
119	12	4Y	Tollesbury Marina	273.64	Υ	250	2	0	01621 869202	YY	YY	YY	YN	YY	20
218	28	-N	Tollesbury Saltings	138.00	N	90	0	0	07521 318155	SS	YY	NN	<<	<<	10
200	25	-N	Walton Yacht Basin	165.00	Υ	40	1.8	0	01255 675873	SY	YY	NO	NN	NY	14
155	18	5N	Waveney River Centre	215.00	Υ	120	1.5	2	01502 677343	ΥΥ	YY	Y0	YY	YY	35
225	30	-N	Wisbech YH	131.24	N	128	1.5	0.6	01945 588059	YY	YY	YN	Υ<	<n< td=""><td>75</td></n<>	75
61	1	4N	Woolverstone Marina	389.75	N	235	2.5	2.5	01473 780206	YY	YY	YY	YN	YY	12
_		_									_				





National ranking	Regional ranking	TYHA/TransEurope	Marina name	Annual average price per metre (£)	Harbour dues	Number of berths	Maximum berth depth (m) at MLWS	Depth (m) in the approaches at MLWS	Telephone	Water/Electric	Toilets/Shower	Laundry/WiFi	Diesel/Petrol	Gas/Chandlery	Lift-out tonnage
92	7	5N	Chatham Maritime	318.05	N	358	2.5	2.5	01634 899200	YY	YY	YY	YY	Υ<	16.5
197	22	-N	Conyer Creek Marina	168.76	N	20	0	0	01795 521711	YY	YY	NO	<n< td=""><td><n< td=""><td>8</td></n<></td></n<>	<n< td=""><td>8</td></n<>	8
104	9	5Y	Dover, Granville Dock	292.29	Υ	136	2.5	2.5	01304 241663	YY	YY	Y0	Υ<	<<	50
100	8	5Y	Dover, Tidal Harbour	306.95	Υ	106	2.5	2.5	01304 241663	YY	YY	Y0	Υ<	<<	50
143	15	5Y	Dover, Wellington Dock	236.00	Υ	157	3	2.5	01304 241663	YY	YY	Y0	Y<	<<	50
154	17	-N	Gallions Point Marina	218.93	N	120	3	0	02074 767054	YY	YY	NO	<<	W	25
107	10	5Y	Gillingham Marina	290.00	N	480	2.4	3.2	01634 280022	YY	YY	YY	YY	YY	65
204	24	-N	Highway Marine	161.20	N	80	1.5	0.5	01304 613925	YY	YY	NN	<<	YY	10
123	13	-N	Lady Bee Marina	262.84	Υ	80	2.5	1.8	01273 596680	YY	YY	NY	<<	YY	25
1	1	3N	Limehouse Basin	739.65	Υ	89	2.4	0.5	02073 089930	YY	YY	YN	<<	<y< td=""><td></td></y<>	
252	27	-N	Meeching Boats	78.04	N	80	0	0	01273 514907	NN	NN	NN	<<	<<	
116	11	-N	Newhaven Marina	276.00	Υ	285	0	4.5	01273 513881	YY	YY	NN	Y<	<y< td=""><td>12</td></y<>	12
201	23	-N	Peter Leonard Marine	164.10	N	30	0	0	01273 515987	SS	YY	YN	< N	YY	12
1	1	3N	Poplar Dock Marina	739.65	Υ	89	12	1	02073 089930	YY	YY	Y0	YN	<n< td=""><td></td></n<>	
179	20	-N	Port Medway Marina	190.24	Υ	300	3	5	01634 720033	YY	YY	YN	<<	YN	25
139	14	-N	Port Werburgh	242.82	Υ	150	0	0	01634 252107	YY	YY	YN	NN	NN	15
68	5	5N	Premier Brighton	366.80	N	1536	2	2	01273 819919	YY	YY	YY	YY	YY	50
83	6	-N	Premier Eastbourne	334.20	N	830	2.5	2	01323 470099	YY	YY	YY	YY	YY	50
117	12	4N	Ramsgate	275.40	Υ	700	3.1	3.1	01843 572100	YY	YY	Y0	YY	<y< td=""><td>40</td></y<>	40
212	25	-N	Sandwich Marina	148.20	N	50	1.5	0	07974 754558	SS	YY	NN	<<	Υ<	20
46	4	-N	South Dock Marina	426.83	Υ	200	3	0	020 72522244	YY	YY	YN	<<	<<	17.5
16	3	-N	St Katharine Docks	569.33	Υ	180	5	5	02072 645312	YY	YY	Y0	<<	NN	
223	26	-N	Strand Quay	134.11	Υ	20	0	0	01797 225225	YY	YY	NN	<<	<n< td=""><td></td></n<>	
170	19	-N	Swale Marina	201.55	N	190	0	0	01795 521562	ΥΥ	YY	NO	YN	ΥN	30
169	18	-N	The Embankment	201.60	Υ	30	2	0	01474 535700	SS	YY	NO	Υ<	YN	
149	16	-N	Victory Marina	225.24	N	30	5	5	07785 971797	YY	YN	NN	<<	<<	
196	21	-N	Youngboats	169.00	N	100	0	0	01795 536176	YY	YY	NN	NN	NY	10



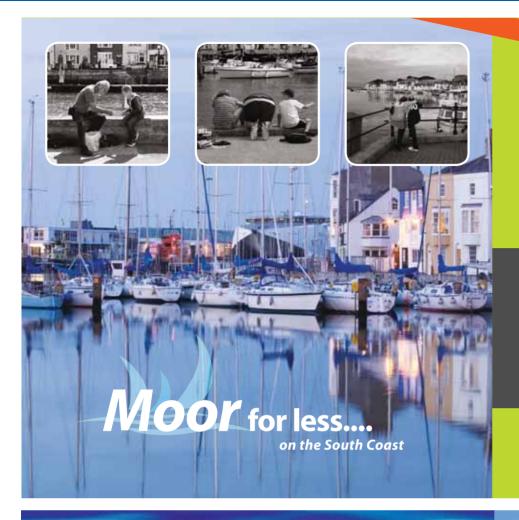


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90	5	-N	Arklow Marina	323.33	Υ	70	2.5	2.5	+353 872 375189	YY	YY	Y0	<<	<<	40
206	17	-N	Cahersiveen Marina	160.00	Υ	93	2.6	3	+353 669 472777	YY	YY	Y0	<<	<<	
148	9	-N	Carlingford Marina	227.90	Υ	180	2	1.5	+353 429 373073	YY	YY	Y0	YN	NN	50
98	6	4Y	Castlepark Marina	309.67	N	150	13	10	+353 214 774959	YY	YY	YY	Υ<	<<	
168	12	-N	Crosshaven Boatyard	203.58	N	80	4.5	3.3	+353 214 831161	SS	YY	NY	YN	<n< td=""><td>40</td></n<>	40
187	14	-N	Dingle Marina	180.00	Υ	120	5	2.6	+353 669 151629	YY	YY	YN	Υ<	YY	
47	1	5N	Dun Laoghaire Marina	423.85	Υ	700	4	4	+353 120 20040	YY	YY	YY	YY	Υ<	50
205	16	-N	East Ferry Marina	160.72	N	80	10	3	+353 867 357785	YY	YY	NN	YN	NN	
162	10	-N	Fenit Harbour & Marina	210.00	Υ	130	>5	>5	+353 667 136231	YY	YY	Y0	YN	<n< td=""><td>0</td></n<>	0
64	3	-Y	Greystones Harbour	375.00	Υ	150	6	7	+353 128 73131	ΥY	YY	NO	Υ<	<n< td=""><td>30</td></n<>	30
147	8	-N	Kilmore Quay	230.72	Υ	60	1.5	1.5	+353 539 129955	YY	YY	YY	YN	YY	10
166	11	-Y	Kilrush Marina	204.00	Υ	120	2.5	2.5	+353 659 052072	YY	YY	YY	Y<	<<	45
184	13	-N	Lough Swilly Marina	184.87	Υ	167	2.5	1	+353 749 360008	YY	YY	NY	<<	NN	
58	2	-Y	Malahide Marina	397.00	Υ	350	3	0.4	+353 184 54129	YY	YY	Y0	YY	N<	30
239	18	-N	New Ross Marina	99.17	Υ	66	3.5	3.5	+353 863 889652	YY	YY	YN	YY	Υ<	50
87	4	-N	Poolbeg Marina	330.00	Υ	100	2.6	8	+353 166 89983	ΥY	YY	YY	Υ<	Υ<	
133	7	-N	Salve Marine	252.11	N	40	4.5	3.5	+353 214 831145	YY	YY	Y0	YN	YY	7
191	15	5N	The Royal Cork YC	176.25	N	220	3.5	2.2	+353 214 831023	ΥY	YY	YY	YY	YY	44
242	19	3N	Waterford Marina	95.19	Υ	120	>5	>5	+353 513 09900	YY	YY	Y0	<<	<<	30





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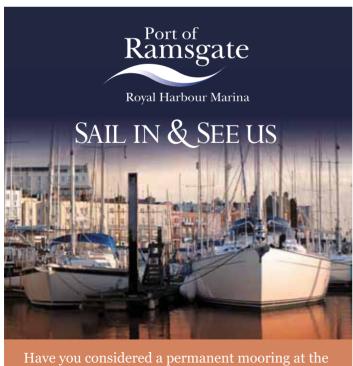
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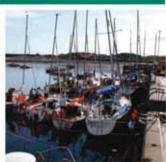




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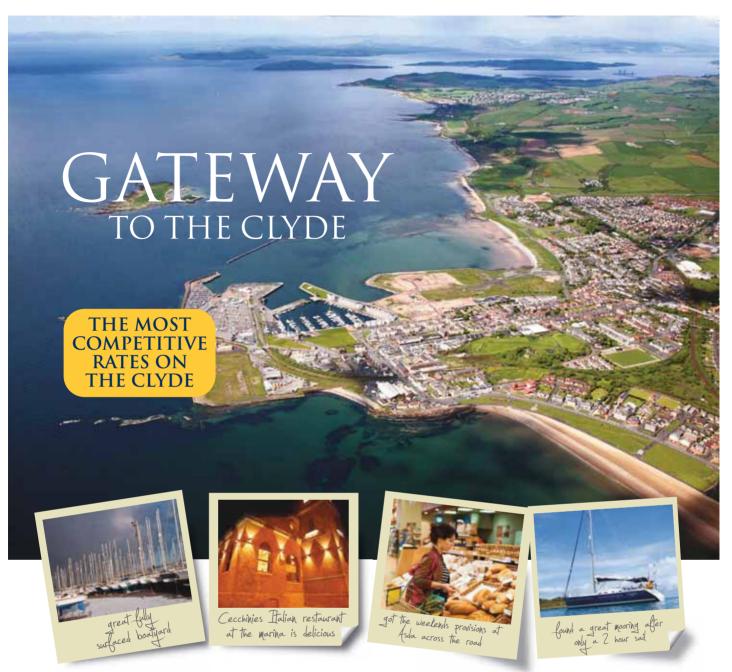
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# Decisions for downsizing

#### **ABOUT THE AUTHOR**



Mike Hall, pictured with his wife Clare, has been a cruising sailor for more than 50 years. This includes sailing around most of north-west Europe as well as taking part in two Round Britain Races. Mike Hall explains the reasoning which led him to downsize from a 40-footer to a 26-footer – and identifies several key factors with regard to choosing a suitable boat

s the great-grandson of a Fastnet Rock lighthouse keeper, I felt I should have taken more note of Joseph Conrad's famous words. At 14m (46ft) overall, 16-and-a-half tons and with 1,400 square feet of working sail, it wasn't that *Tristan da Cunha* was too big: just that it was me who was growing smaller. This was the challenge that had to be faced, and so the process of analysis and choice of options began.

Having sailed, built, fitted out and owned boats since the age of 10, starting with the £5 purchase of a former fighter pilot's 6ft inflatable survival dinghy, I slowly climbed the ladder to greater things. Guided by the designs of Robert Tucker, Commander DA Rayner, Harrison Butler, Alan Hill, Peter Brett, Charles Nicholson and on to Peter Ibold, by the early 1980s I had reached what was, for me perfection: an Endurance 40. A little ship of quite outstanding qualities, and so it remained for 28 very happy cruising years.

However, reality struck in 2011 with little warning. Suddenly, some of the fun had disappeared, and sailing was becoming a little too much like hard work. *Tristan* 





where we had left her prior to an intended Baltic cruise. We had just completed our third round-Britain cruise, this time via the Crinan and Caledonian canals and taking our time to enjoy the numerous small fishing harbours of the north-east coastline. It may have been the 10-hour, 500-mile round journey from Bristol to Shotley and back again that proved too onerous, or perhaps the very large amount of effort involved in Tristan's maintenance, but It was clearly time to rethink strategies. The answer lay in selling the boat to a long-time sailing friend and accepting that all good things have an eventual conclusion, and that it was time to get on with other things in life.

So began what would prove to be the most unhappy, boat-less six months of my life. However, I am fortunate in having a very understanding wife, who not only accepted the nature of the problem but was also pragmatic in her response. 'You'll have to get another boat,' was her solution, 'so get on with it'. This was just what we did, and we had the immense good fortune of finding one of the greatest naval architects of cruising yachts - Chuck Paine. What follows is an account of that journey.

#### The key issues

Basically, the key issues were no more than three: physical, lifestyle and financial, and in that particular order for us. We needed a boat that was less of a physical challenge. As the years pass you are less strong, your sense of balance reduces and you really need to take more care of your body. Larger boats are more stable, while smaller craft are far more lively and likely to be less kind in their motion to their crew. To put it in other words, as you go down in size so safety concerns become more apparent and essential to address. In your 50s, recovering an overboard person is still a possibility, but in later years the reality is far more likely to be that falling over is your final act.

Then there are all the aspects of sailing

**ABOVE The** underwater hull shape of Grayling, Mike and Clare Hall's 7.9m (26ft) Frances 26

TOP Teamwork is an important facet of boat ownership: Clare is a supportive and active partner in the running and upkeep of Grayling

which really matter: why is having a boat so important or necessary to you? Is it a means of staying in contact with your friends? Is it a way of relaxing from a more obsessive, stressful lifestyle? It may be that your boat is the maritime equivalent of a mobile, second home a way of reaching and exploring new places. At another level, perhaps it is your 'garden shed', which satisfies your need to make things. Or, more seriously, is it because the boat somehow underpins your philosophy for living? To put it another way, perhaps owning a boat is just that: the need to own a boat.

When it comes down to financial considerations, the debate is much easier to discuss: a smaller boat is very attractive to your bank account. There is a lovely story from the 1920s, when the owner of a J-class yacht was asked by a curious spectator what it cost to run such a vessel. His answer was brief and irrefutable. 'If you have to ask that question, sir, then you will never understand the answer.' The truth is that very few yachtsmen will even ask the question, because none of us really wants to hear the answer. Suffice to say, moving down from Tristan to our Frances 26 Grayling has resulted in a more than





50 per cent reduction in running costs, from over £6,000 a year to less than £3,000. These include marina charges, insurance, maintenance and general expenditures.

Then there are the hidden costs which we all tend to choose to overlook. For example, for more than 40 years I have always had a servo-pendulum self-steering gear hung off the transom: firstly an Aries and then a Gunning. Both worked very well and became part of our sailing lifestyle, and the question arose with *Grayling* as to whether we should fit one or not. She has such a sweet double-ended stern that I had a real challenge on my hands: did convenience and efficiency matter more than aesthetics? The alternative would be to employ a tiller pilot with wind data input.

Comparing relative costs provided a clear-cut answer: a windvane would cost more than £2,000, compared to £650 for the electronic solution. More importantly, however, the windvane assembly would add an additional half-metre to *Grayling*'s overall length and provide an increase in ongoing yearly marina charges of more than £150. So, no contest there then: smaller and more simple really can be the uncomplicated solution in more than one sense.

As a consequence, I stumbled upon the one word which seems to encapsulate the whole concept of downsizing, and that word is 'enough'. All that remained was to decide upon those areas of our sailing lives where we needed to ask: what does 'enough' mean for us? After further reflection, we defined those areas as follows: size of new boat; personal wellbeing and ease of handling; best use of our time; desired lifestyle; becoming aware of a different kind of sailing; physical accommodation and, lastly, defining the end game – a legacy for the future.

ABOVE The forward-hinging forehatch allows you to safely stand and put in a reef from the base of the mast

BELOW Mike and Clare at work on Tristan, filming Robin Knox-Johnston on Suhaili for a TV series about forgotten ports of the Bristol Channel



#### Size of new boat

This proved much easier to establish than we at first imagined. There is a wonderful book written by the South African yachtsman John Vigor called *Twenty Small Sailboats To Take You Anywhere*, and it really is required reading. Of the 20 yachts he reviews from across the world, 44 per cent are no more than 26ft overall and 75 per cent are under 30ft.

To cross-check these figures, I did an analysis of the Victoria/Shadow Association members' boat ownership and discovered that almost 60 per cent of these were no more than 30ft overall and 43 per cent were no more than 26ft overall. I should perhaps also point out that all these boats come from the design board of Chuck Paine, and that his book My Yacht Designs And The Lessons They Taught Me is available as a download from his website, www.chuckpaine.com. You will not be disappointed.

### Well-being and ease of handling

As you come down in size, you need to plan and design for comfort. You do not want to be thrown about down below or tossed around a lively cockpit as you make your way to windward. Bracing points and handholds are an effective solution in the cabin, while a well-designed cockpit with dodgers and a sprayhood to keep the water where it belongs is essential.

Also, do not be over-keen to bring all the control lines back to the cockpit: being faced with a mess of congealed ropes entwined on the cockpit sole is not very helpful. One possible solution is to find a yacht with a forward-hinging hatch where you can safely stand while you put in a reef from the base of the mast. There's no danger of falling overboard from there, and it's surprisingly less damp than you might imagine. Then, of



ABOVE A vertical 'handhold' pillar at the galley BELOW The chart table folds down



course, you might be thinking ahead and putting in that early reef before it becomes any kind of problem.

Perhaps the biggest surprise we met with *Grayling* was just how easy it is to handle a smaller boat in close-quarter situations. Everything is so much lighter than trying to stop 16 tons when you have misjudged your speed of approach to the intended spot on the quayside. The load on your lines is so much less that everything becomes easier and far more fun.

#### **Best use of time**

This really fits into two categories: time spent travelling to the marina and time spent in yacht maintenance. The first I have already mentioned as a cause for concern: hours spent travelling on busy roads are hours when you could be sailing. Now we live no more than 15 minutes' drive away from *Grayling* and can be off sailing in less than an hour. Day-sailing rather than long-distance cruising has become a very attractive, rediscovered alternative pastime.

Maintenance is another issue altogether. Getting *Tristan* ready for the season took Clare and myself at least six weeks of hard, unrelenting physical work. Antifouling took two days, while varnishing seemed to take forever – and 10lt of antifouling costs a lot of money. Now, however, we can have *Grayling* ready for the season in less than five pleasantly occupied days. It's all become fun again.

#### **Desired lifestyle**

This can be a rather more complicated topic, and one which can only be addressed in personal terms. For myself,





I must have a boat that is bulletproof to all the conditions to which she will be subject. Hull construction, rigging, fittings, equipment: the choice is yours, and here the size of the boat can become an issue. Smaller boats tend to be built down to a price, and a lot of gremlins can lurk in there. Quality really matters, so buy wisely and be well advised.

Also, bear in mind that when you were previously moving up the size ladder, certain lifestyle issues would have quietly become accepted norms. Entertaining friends to drinks and meals on board, listening to hi-fi music and radio, having well-stocked lockers and bookshelves, being surrounded by the memorabilia of previous cruises. As the saying goes, a house becomes a home because of the things you choose to have around you, and your boat becomes your second home.

There is a lot to think about here, so take your time. Many of the yachts we visited all over the country when looking for Grayling were soulless, unloved and uncared-for: they were empty, unwanted acquisitions, long past their sell-by dates and left to decay.

#### A different kind of sailing

This can come as a bit of a surprise, and is best illustrated with an anecdote. We'd only had Grayling for a short while and I had not thought through some of the implications. In truth, I was still thinking of Tristan while planning to take our new boat out to sea. The forecast was for westerly Force 3/4, perhaps 5 later, with a weather-going Bristol Channel medium-range tide: typically for Tristan, this would involve one reef in the main before leaving the marina

for a pleasant 18-mile trip to Penarth.

Boy, did we catch it. I had completely overlooked what downsizing really means: you have to revisit and rethink all your sailing procedures. You cannot equate a lager glass with the best Waterford crystal: smaller boats require much more careful thinking. It's not difficult to adjust to the new challenges, it's just that everything has to be anticipated in an informed way. A choice of possible plans has to be made well in advance, then everything falls into place. Assume the worst eventuality and have an alternative plan ready to go. Basically, this is no more than good seamanship.

#### **Physical accommodation**

With us, this appeared to be quite a major concern. Tristan could sleep eight crew in four cabins, with a galley the size of a domestic kitchen: we were truly spoiled for space. So, what were we to

**ABOVE** Open-plan is the way to go!



The stereo system. Mike made the joinery and installed the electrics

**BELOW** Grayling leaving Portishead lock

do? The answer became quite clear, quite quickly.

The traditional layout of the forecabin, amidships toilet compartment, main saloon, galley and chart table is just not a very good use of perceived space. Open-plan is the way to go. Combine the forecabin with the main saloon and you immediately double the sense of space around you. Move the toilet aft and half under the bridge decking, and there's another gain. Grayling emulates the Tardis and has totally useful, 15ft-long living accommodation. Couple this with full standing headroom, and life on board has everything we need.

Consider the concept of multifunctionalism, where every part of the boat serves at least two different functions and further gains can be made. Finally, plan out the most effective use of every locker space. The old adage, 'a place for everything and everything in its own place,' becomes a reality. Problem solved.

#### **Legacy for the future**

In 1984, we made a documentary film about the rebuilding of a new Jester. Blondie Hasler's legendary yacht that had eventually succumbed to the vicious attack of a North Atlantic gale. I asked Michael Richey, her then owner, wherein lay the challenge, and what gave him true satisfaction? His answer is up there with that of Mallory. 'Achievement is not coming first, but in the satisfaction of knowing that a voyage has been well made'.

So, where does this leave us with Grayling? I hope that our pursuit of perfection is the answer. We both hope she will become a legacy to the next generation of our family and be with us all for a long time to come.

Walking down the pontoon in the seventh decade of my sailing life, I stop alongside Grayling to admire her lines yet one more time. She bobs a friendly welcome as I step on board, and suddenly I feel as though I am 25 again, and life is great.







# 10 gelcoat IESTED cleaners

Which gelcoat cleaners are best at combating waterline yellowing on boat hulls? Ben Meakins dons his rubber gloves and puts 10 products to the test

elcoat is an amazing material – hard-wearing, easily repairable and eminently restorable – but as it gets older it becomes porous and starts attracting stains. Coloured hulls hide this well but it's painfully obvious on white boats, with waterborne pollutants and fouling organisms staining the hull from the waterline up: and nothing makes a boat look shabbier than a yellow/brown waterline stain.

Luckily for us, there are few more satisfying jobs than removing such stains when you use the right tools. Even better, for once in boat ownership it doesn't require much elbow grease. Instead, a chemical reaction does the job for you. Chandlery shelves groan under the weight of treatments. Most

contain oxalic acid, with some supplied as a liquid and others mixed with a gel to help them stay in contact with the hull as long as possible. There are other acids which will remove the staining, and some people even claim that lemon juice, if left long enough, will help.

However, not all acids will leave the gelcoat untouched, so it's worth using products that are certified safe for boats. Have a look at the label –although oxalic acid is the most common active ingredient, citric acid and phosphoric acid are used in some products.

Online advice suggests buying a tub of oxalic acid powder and mixing it with wallpaper paste to make your own treatment, but the potential for health issues means we've limited this test to products commercially available in the UK. As with any chemical reaction, the



The cleaners are washed off with water and a sponge

results will improve the warmer the temperature (as long as it doesn't dry out) – and Y10, for instance, claims improved results above 10°C. Our test day in February had colder temperatures of around 6-8°C, so we left the products on the hulls for the longest time specified on the containers.

As we were testing the products, a local professional walked past and proffered his own 'home-brewed' potion, which as far as we could make out was hydrochloric acid. This smoked horribly when applied, caught the back of the throat and felt very dangerous, but it cleaned up the gelcoat visibly faster than the others on test.

However, splashing hydrochloric acid around is dangerous – damaging to skin, respiratory systems and the environment – so it can't be recommended.



#### How we tested them

We borrowed Barney Smith's Impala 28, Imptish, which, after a busy season moored on the Hamble River had a heavy brown waterline stain along her 30-yearold white gelcoat. With the boat out of the water at Deacons Boatyard, we cleaned off the hull with fresh water before drying it off and taping out a test panel on the starboard side, with strips between left untreated to show the hull's condition before the test. We applied each product to its panel according to the instructions on the bottle, leaving it on for the maximum time specified before rinsing off and comparing the result with the surrounding areas.



#### **International Stain Remover**



PRICE: £12.30/500ML (£24.60/LT)

Contact: www.yachtpaint.com

International Stain Remover is part of a new range of cleaning products. The instructions say that it is to be applied generously with a brush or sponge in small circular motions, left on the surface for 10 minutes and washed off. Application was simple, as described. Upon cleaning off, some light staining remained, requiring a second application in order to shift the more stubborn stains.



#### **Silky Marine Bright**

PRICE: £11.99/1LT

Contact: www.silkyproducts.com

This oxalic gel mix is applied with a brush and agitated gently where staining is worst. Leave for 20-30 minutes before agitating again and washing off with fresh water. It is a very thin gel which, like the Star brite Hull Cleaner, foams upon application. After 30 minutes it was easy to wash off, leaving behind a very clean hull, and placing it in the top tier of products.





#### Star brite Hull Cleaner

PRICE: £19.95/950ML (£21/LT)

Contact: www.starbrite.com

Star brite Hull Cleaner is a thin oxalic acid-based liquid and can be applied with a sprayer or sponge. It foams as applied, and is then left for two minutes and rinsed off with fresh water. This required the least time left on the hull, and after only two minutes the staining had gone. The foaming liquid could be washed off easily and without needing a sponge to shift it.







# Farecla Professional Rapid Stain Remover

PRICE: £13.50/500ML (£27/LT)

Contact: www.farecla.com

This oxalic/citric acid mix is sold as a stage two product, 'revive', in a four-stage process that includes wash, revive, restore, and protect as stages. It's intended to be painted on with a soft bristle brush, left for 10 minutes and then rinsed off. A purple, thick and gloopy gel, it spread out easily. The colour in the gel meant that it was easy to see the areas that had been treated. Some light

staining was still present once it had been washed off, and this required a second application to remove.



#### **Y10 Stain Removing Gel**

PRICE: £10.95/340G (£32.20/KG)

Contact: www.force4.co.uk

Y10, which comes in a small tub, contains oxalic acid in a gel form. It is brushed on over the stain, left on for 10 minutes and then washed off. It was easy to apply, and the moderately thick blue gel could be spread quite thinly, helping the pot to go further. Once rinsed off it was the most



consistent performer on test, with all staining on the panel removed to an even white in the 10 minutes it had been left on.





#### Meguiar's Heavy Duty Oxidation Remover

PRICE: £12.60/473ML (£26.64/LT)

Contact: www.meguiars.co.uk

This product differs in that it requires polishing to remove 'moderate oxidation, stains and scratches'. It can be applied by machine or by hand: we opted for the latter approach, rubbing it into the surface with a cloth, and immediately wiping dry with a dry cloth. After three repetitions it was clear that this would require

more elbow grease than the acid-based products, but it did leave behind a nice finish to the gelcoat – although quite a lot of brown staining was still present. Using with a cutting pad on a machine polisher would reduce the effort required, but it still wasn't as easy to work with as the others.





#### **Grunt! Boat Cleaner**

PRICE: £22.45/1LT

Contact: www.gruntboatcleaner.co.uk

Grunt! Boat Cleaner contains no oxalic or hydrochloric acid, instead containing phosphoric acid (also found in Coca-Cola), and is thus said to be biodegradable and safer to use. It is painted on and left for 30-60 minutes before being washed off. This had to be left on for the longest time of the products tested, but upon rinsing off left the hull as clean as the top tier of products save for the heaviest staining. However, as we tried this one at the bow where the staining was worst, that was to be expected. A second application saw to the remaining stains.







#### **Chine Shine**

PRICE: £18.39/2LT (£9.20/LT)

Contact: www.deckhandmarine.com

Chine Shine, which is available in 2, 5 and 20lt containers, is brushed on to the surface, left for 10-15 minutes and rinsed with fresh water. It's a thin gel, blue in colour, and it went a long way. The results upon rinsing were comparable to the best-performing products we tried. It's also the cheapest per litre of the products on test.





#### **Boat Buddy Marine Surface Cleaner**

PRICE: £21.91/1LT

Contact: www.boatbuddy.org.uk

Boat Buddy Marine Surface Cleaner is sold as a second-stage product in an eight-stage cleaning system. It's a similar formulation to Grunt! Boat Cleaner, and, as with that product, it's designed to be brushed on, left for 30-60 minutes and then washed off. It left the hull in a good condition, bright white, with the worst areas requiring a second application.





#### **Hempel Cleaning Gel**

PRICE: £14.95/500ML (£29.90/LT)

Contact: www.hempel.co.uk

Hempel's Cleaning Gel is a thick bright blue gel, the thickest on test, which required some squeezing to remove from the bottle. It could then be applied with a brush on to the stained area. It should then be left for 15-30 minutes and removed with freshwater hosing. It can be agitated with a brush if required. Some light staining remained after the first application, but a second dose resulted in a clean white hull.







The front and middle of the hull after the test: there's an obvious difference between areas which had been treated and those which hadn't

#### **PBO** verdict

s expected, all the products we tried improved the hull's Acolour significantly. There were a few products which gave 'top tier' performance, however - Y10, Star brite Hull Cleaner, Silky Marine Bright and Chine Shine gave the best results in the fastest time.

In the next tier, very nearly as good, were Grunt! and Boat Buddy, which delivered equally good results after a longer time. Next up, International's Stain Remover, Hempel Gelcoat Cleaner and Farecla's Rapid Stain Remover performed well but required a second application on stubborn areas. As all the products except Meguiar's No49 contain some sort of acid, be it oxalic or phosphoric, it's not surprising that the results were all very similar. However, differences lie with the concentration of the acid and the makeup of the gel or liquid in which it's suspended. Gel has the advantage that it 'clings' to the hull and keeps the acid in contact for longer than a thin liquid which can run off - meaning you also use less.

Prices varied considerably. Chine Shine gave great results for the lowest cost per litre (although it's only available in sizes from 2lt upwards), with Silky Marine Bright also coming in cheaply. Y10's gel format gave great results in a short time.







Even ancient mariners can sail indefinitely with proper planning and a willingness to adapt. Charles Warlow advises on several key issues for older crew to consider

achting magazines are full of articles about children on boats, even babies on boats. But how often do you read an article about older people on boats? We, the aged, are invisible, but many of us still like to sail the seas. As I get older, so do my

#### **ABOUT THE AUTHOR**



Charles Warlow, 71, sails a Rustler 36 based at Dunstaffnage. He has

sailed round the UK, round Ireland and to the Faroes, as well as starting www. scottishanchorages.co.uk crew. I myself may be well used to the boat and reasonably fit, but it is a mistake to assume the aged crew will know how to cope. They may need advice, so here it is.

As a medical student, I was taught that geriatrics – 'gerries' in the vernacular, nowadays re-badged as 'care of the elderly' – can be summed up as paying attention to eyes, ears, teeth and feet. So how does this pan out on a boat? Older people constantly lose stuff, particularly their glasses, so to begin with, carry a couple of pairs of reading glasses from Boots. These are not so good for spotting buoys, but are OK for reading charts. (Two older people could perhaps share reading glasses.)

One can't do much about hearing aids: those who require them will have to look after their

own, or be deaf to the skipper's orders, or at least pretend to be conveniently deaf. One can't do much about false teeth either. These are not easily lost, although they can be – and have been – vomited overboard. As for chiropody, get it sorted before the cruise: and if the crew can't bend down to put on their shoes and boots, bring a long shoehorn.

Other topics to take into consideration when planning a cruise with an older crew are getting on and off the boat; the prostate; constipation; and pills.

Of course, crew of any age should be warned about slippery pontoons in the wet. However, older people don't much like leaping down from the deck, preferring instead to step down backwards, so the skipper's parking skills are important.

Getting into and out of the dinghy

can be a real problem: often, older people simply cannot bend their knees and hips enough to step up on to the side deck, or even up over those scoop things on the back of more modern boats. As a solution, get a suitable boarding ladder and sort out handholds where necessary. We now have a knotted rope to hang over the side by our boarding ladder. Hanging off the stanchions may be tempting, but they bend. If really stuck, cruise from pontoon to pontoon, or perhaps rig up a block and tackle.

#### **Prostate problems**

As regards the troublesome prostate, make sure that the worst-affected male has a bunk close to the heads, or with easy access to the deck at night: but don't let them do a Robert Maxwell and fall off the back. The rule is, as ever, one hand for the boat, and one hand for you-know-what.

Another tip is to keep a plastic bottle for discreet cockpit use, with a suitably sized (and sanded) hole cut in the side near the top – regular,

#### Sailing with an older crew (B)



'Sailing is a grand game, the best I know, and I have played it all my life. Now I am getting long in the few teeth I have left I am still playing it, and hope to do so for some time yet.'

Percy Woodcock in Looking Astern: A Ditty-Bag of Memories (Frederick Muller Ltd, London, 1950)



A cuppa never goes amiss!



70-plus-year-olds off Marwick Head

medium, large and outsize.

Just occasionally, there may be a real medical emergency when the afflicted male goes into acute and very painful retention of urine. The kidney makes urine and the bladder fills, but when the time comes to empty it the prostate gets in the way of the urinary outflow, which then stops.

Unfortunately the kidneys do not stop making urine, so the bladder goes on filling. And filling. Get help quick: and if you feel competent, take a urinary catheter with you to temporarily relieve the situation. Retention can be incredibly painful.

Constipation is best dealt with by prevention: eating plenty of fresh fruit and veg, prunes and so on. I hesitate to suggest that you carry some surgical gloves for a manual evacuation, but sometimes needs must. Otherwise, you could suggest that the crew member retires to the heads with a good book, and keeps trying.

Regarding pills, a large proportion of elderly people are now taking them. They must be reminded to bring them, and take them without shame. Most are innocuous.



Bring a long shoehorn for those who have difficulty bending down



Get a suitable boarding ladder

unless the befuddled crew member mistakes his or her sleeping tablet for a painkiller and slumps over the tiller while on watch.

One type of pill, however, is a tad irritating. So many older people are in atrial fibrillation (irregular heartbeat) and take anticoagulants to reduce their risk of a stroke. Anticoagulants make them bleed, so after even quite modest cuts you can end up with some very nasty stains on your lovely white sails. Be careful. And thinking about the heart. I don't know anyone who has a batterypowered defibrillator on board, but they're available on Amazon.

Finally, as ever, tell the crew to wear a lifejacket, and to hold on to the boat with at least one hand whatever they are doing: balance deteriorates with age, and I should know. Invest in an electric windlass, and even electric winches when you and your crew are really old. In other words, adapt - don't stop sailing. Like the 92-year-old I met in 2012 at the Scottish Boat Show, there's no reason to stop: just sail a suitable boat. Never give up.

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# Mend your own engine seawater pump

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Peter Lyle refurbishes the seawater pump on his Jeanneau 36i for a fraction of the cost of replacement or professional repair

efore leaving our anchorage in Loch Claidh on the Isle of Lewis aboard our Jeanneau 36i Albatross, I had a quick look at the engine. I noticed that there was a fine rusty line in an arc around the engine compartment: it seemed to radiate from the seawater pump. Without the wherewithal to investigate it properly, we decided to set off for Loch Harport on Skye anyway.

The wind soon died and we motored for the last six hours of the voyage. Having anchored, I checked the engine again. There was rust and water all over the engine bay. Even with the engine stopped there was a generous trickle of seawater from the back of the pump. A few more hours and we would be sinking. Fortunately, we had a spare pump and these are easy to fit. As I removed the old pump, half a dozen ground-up ball bearings fell out. The pump had been within minutes of complete failure.

Returning home at the end of the

season, I looked up the prices for repair or replacement of the pump. A Yanmar 3YM30 seawater pump retails at about £280: alternatively, buying all the spares I needed from a marine supplier, even if I could source them, looked to be very expensive. I found a 'cheap' repairer on eBay. His estimate climbed to over £150. I thought about fixing it myself but had none of the specialist tools needed for pressing the bearings into place.

#### New bearings

Taking the pump apart was easy. I removed the faceplate and the impeller plus a circlip that held the back bearing in place. The pump then simply fell apart in my hands: a pile of rust, some ball bearings, two broken bearings, a water seal and the main spindle complete with the one remaining circlip.

Every sailor needs a Vernier caliper (about £13 from Screwfix). Armed with sizes of all the broken parts, a local engineering supplier



Taking the pump apart proved to be easy

provided me with both the bearings, the circlips and the shaft seal (plus a spare) for £20 all in. The shaft itself was undamaged: this was fortunate as spares retail at over £80.

I cleaned up the old pump body with a toothbrush, cleaned the rusty pulley wheel with emery cloth and gave it three coats of paint. I found an exploded diagram of a similar pump on the internet and started putting things back together again.

I pressed in the inner bearing by forcing it down on a piece of threaded studding held in a vice. The studding sticks upwards from the vice, through a small piece of wood (to protect the water pump body), through the pump, on through the bearing and thence through two wrench sockets and a large washer. Tightening the nut on the top of this arrangement pushes the bearing into place.

Next, the central shaft slipped in easily, complete with one of the circlips and a spacer. I drove the other bearing into place with a spark plug spanner which I tapped gently with a small hammer. A circlip holds the bearing in place. A rubber O-ring sits between the water seal and the inner bearing to help prevent seawater from reaching the bearing. The water seal is easy to push into place: the impeller, gasket and front plate are all easy as well.

Hey presto, one refurbished water pump. Parts cost £20, the Vernier caliper was £13, and the circlip pliers £10.



I made a bearing press by holding a piece of threaded studding in a vice



The inner bearing was pressed in with a spanner



All done, apart from replacing the impeller

# **Simple tiller lock**

Paul Farr makes a straightforward hardwood tiller lock

his simple wooden block locks the tiller centrally and stops it swinging around, particularly when on a swinging mooring. An advantage to its simplicity is there's no need for any additional fixings or brackets. Made from a hardwood offcut, it's shaped and drilled so as to locate over the two standard tiller stops and retain the lug fixed to the rudder stock: merely place it in position and the tiller is secured. I have seen a few other ways of locking the tiller, but none as straightforward as this. The cost of a piece of hardwood was approximately £3.



## **Mods for easier reefing**

ave you ever had your cringle slip off your ramshorn? It can be very painful!

Here are some modifications I've made to Mikado II, my

S&S 30 moored at Hastings near Melbourne, Australia. **Geoff Champion, Mount Dandenong, Victoria, Australia** 



Spring clips were welded to the ramshorn to prevent cringle slippage



A slight alteration to the reefing cringles – stainless steel rings whipped on to webbing which passes through the cringle eyelet



Jiffy reefing with less friction

■ See our feature on S&S cruisers on page 26

## **Readers' Tips**

# BUILDING SITE SPIKES KEEP TRICOLOUR CLEAN

At a local building site I noticed a remnant scrap of a strip of spikes that are used to prevent pigeons sitting on the windowsills of commercial properties. When I asked the builder about it he let me have it for nothing.

I cut off a short section of four of the plastic spikes and attached them on top of my tricolour with Sikaflex 291i sealant, then remounted the tricolour to the top of the mast. The spikes are well clear of the windvane and antenna, and there's no more fouling of the



tricolour by gulls or crows.  $\bar{l}$  have had it in place for several years now and have never had to clean the tricolour since installation.

Willem Bijl, Chelmsford, Essex

#### **DINGHY LANDING OFF THE HOOK**

After 20 years of messing about in boats we have rarely mastered the art of smoothly landing our dinghy at a quayside or pontoon and gracefully stepping ashore to secure the painter.



Quaysides vary in height and not all have mooring rings or cleats in the right place, if any at a

cleats in the right place, if any at all. What we needed was something that I could use to snag mooring rings and/or pick up (usually filthy) mooring ropes. However, it needed to be compact and stored somewhere secure in the dinghy when we went ashore.

We purchased a small telescopic boat hook (67cm when retracted/100cm when expanded). When retracted it fits neatly under the dinghy seat, out of sight, secured by two pipe clips underneath the seat. It's a simple, cost-effective solution to a problem that has bugged us for years. The hook is also invaluable when getting in and out of the dinghy from the boat.

Jeremy and Debbie White

#### **HELPFUL HOOD HANDLES**

As I sail a lot singlehanded, it's an especially good idea to avoid falling overboard.

When getting out of the cockpit of my Rival 34, the first grab rail I used to seize was on the cabin top, but this was a few unsecured paces forward: so I got a sailmaker to stitch



pairs of stainless steel rings onto the sprayhood sides.

It then took me just a few minutes to splice grab lines onto each pair of rings. The tape holding the rings is sewn where there are doublers on the hood cloth, and naturally this is where the hood is extra-strong. It has made a vast difference to my safety onboard, and is an idea that can be copied on virtually any yacht with a sprayhood.

Ian Nicolson





# My Jeanneau won't point!



GBR 3216L



When all around you are pointing higher than you are, and your boat just won't keep her head up, what do you do? One Jeanneau owner asked David Harding for help

acht racing isn't only for racing sailors. We all know that. Why else would the Round the Island Race be so popular? Much of the appeal of this particular event lies in the opportunity it affords weekend cruising sailors to pace their boats over a 50-mile course against many others of similar size and type. Wherever you are in a fleet like this, and whatever boat you're sailing, chances are you will find yourself in close company with others of broadly similar performance.

You don't have to be a cut-throat racing sailor to indulge in a little tweaking, hoping to catch the boat ahead or avoid being overtaken. It helps make you a better sailor and might also lead to improvements to your boat. I have spoken to and sailed with many cruising sailors whose participation in the Round the Island Race has made them aware of weaknesses in their boat's sailing abilities. These might otherwise have gone unidentified, while still hampering both progress and enjoyment, or remained as a lingering, nagging doubt.

Peter Kewish was left in absolutely no doubt about his boat's performance on his way around the island in 2013. He was unsurprised that his Jeanneau Sun Way 21, Jenn-Oh, sizzled on the downwind legs. He knew she was quick with the wind abaft the beam, on one occasion clocking her at a constant 17 knots and, on another, reaching his mooring on the Wareham River within an hour of sailing through the entrance to Poole Harbour. Downwind most definitely wasn't a problem. Upwind was: pretty well every boat in sight during the Round the Island Race was pointing several degrees higher.

It's not as though Peter doesn't



know how to sail. While Jenn-Oh is the first cruiser he has owned, he's an experienced sailor with several Atlantic crossings under his belt. Far more importantly when it comes to sailing ability, he also trained as a dinghy instructor some years ago.

#### **Sporty by design**

Peter's background suggested that operating error was unlikely to be the problem. Neither did the boat herself appear to be short of potential. Designed by J&J and built in the early-to-mid 1990s, the

Sun Way looks very much like a mini-tonner that has been detuned as a production boat with a smaller rig and shallower draught. Some examples are centreboarders while the rest, like *Jenn-Oh*, have wing keels that give them a draught of 2ft 6in (0.76m).

Peter suspected that the problem lay in the sheeting arrangements. As he pointed out when he first got in touch, there's no mainsheet traveller. That wouldn't help, but was unlikely to be the principal cause. He was also concerned about the headsail sheet. It

originally had a barber-hauler – a system of blocks and lines used to deflect a sheet between the sail's clew and the sheet block – but it didn't seem to help. It just got tangled on every tack, so he

My investigations started in my own photo library: having photographed every Round the Island Race for the past nine years, I knew I had seen Jenn-Oh through the lens. Thankfully the indexing system worked, and up popped two shots from 2013. One showed her downwind, semi-surfing around the back of the island under white sails. In the other she was in the Solent, beating towards the finish. From off the beam it was hard to see the shape of the headsail, though the leech appeared to be stretched and flapping.

'The bad pointing is in all winds and there is very noticeable weather helm in a breeze', Peter told me. It was clear that we would have a job on our hands.



# **Altering angles**

To see what we could do, I joined Peter for a winter's sail in Poole Harbour. With a forecast of a very light wind rapidly building to around 25 knots by midday, and with rain and more wind to follow, we had a short weather window and would have to work fast.

As soon as there was enough wind to fill the sails, we unrolled the genoa. The problem was instantly apparent: the position of the fixed sheet block, on the aft corner of the coachoof, resulted in a very narrow sheeting angle for a genoa with this sort of overlap (around 125%). The sail was wrapped around the cap shrouds below the spreaders.

With boats that have overlapping headsails – especially performance

boats, where sheeting angles are narrower – the length of the spreaders is a critical factor. A sail has to sheet properly at spreaderheight, not just at deck level. *Jenn-Oh* has a new rig, following a dismasting a couple of years ago, but there's nothing to suggest that the spreaders are a different length from the originals.

There was simply no provision for sheeting this sail efficiently. It was as if the boat had left the factory before all the deck hardware had been fitted. Or perhaps the sail wasn't the original, although there were signs that it might have been.

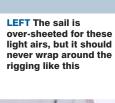
It was hard to see how a barberhauler as Peter described it would have helped, since the clew of the

> sail was only a foot or so (about 0.3m) from the block and moving the clew further inboard was the last thing we wanted to do.

Simply easing the sheet wasn't the answer, as the photo on the right shows, and hauling the clew outboard

proved impossible. On most boats you will find a U-bolt, pad-eye, slotted toerail or some form of strong-point forward of the sheet's block (or car on a track) to which you can rig up a barberhauler. Here we had nothing.

Whether the sail was wrapped around the rigging or twisted out so that half the power was thrown away, it was no wonder the boat wouldn't perform.





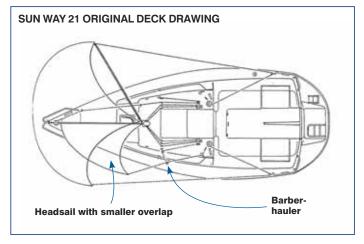
ABOVE Easing the sheet slightly allowed the sail to clear the rigging, but then the leech twisted open so far so that much of the drive was lost – especially when the wind increased. A boat won't point with a sail like this



This is how the headsail was sheeted: straight to a fixed block on the coachroof

#### **Barber-haulers**

Whether they're of a cruising or a Fixed sheeting blocks can be racing persuasion, yachts typically fine if you have a barber-hauler, come with tracks for the headsail and that's what Jeanneau's sheet to allow you to move the original plan-view drawing car forward or aft, thereby shows on the Sun Wav 21. It changing the sheeting also shows a headsail with position to suit the strength what appears to be an and angle of the wind and appreciably smaller overlap, so the clew is further the cut and size of the sail. Even if a fixed block is forward. This allowed in the right place for the barber-hauler to be most conditions, the attached to the coachroof geometry can be immediately outboard of thrown out by a the deck organisers, new sail that's cut pulling the clew both slightly differently down and inboard. or a tack that's Given a clew that's raised or both high enough lowered by a and far enough Incorrect sheeting few inches. angle (car too far aft) forward, there's no reason why the system Correct shown on the sheeting Sun Way angle shouldn't work perfectly Correct well In fact sheeting angle a fixed block Foot block with a barberhauler costs less and involves



fewer through-deck fastenings than a track, so it can make sense, especially on a small boat like this.

On Jenn-Oh with her current sails, the sheet lead was both too far aft and too far inboard. It's easy to understand that overly wide sheeting angles will limit pointing. Narrower can be better, especially when you have a headsail with minimal (or no) overlap. As overlap increases, however, not only does the extra sail area contribute

proportionally less drive than the non-overlapping part, but if it's too close to the leeward side of the mainsail it will also cause back-winding and choke the slot between the sails.

Rethinking the sail plan and deck hardware, taking into account how much Peter is prepared to spend, would be a job for another day. First we needed to see how we could improve matters with what we had.





#### STEP 1

# **Tensioning** the rigging

Whatever we did, our efforts would be largely wasted unless the rigging was tight enough - which it wasn't. Even in the light airs initially there was way too much forestay sag and the leeward cap shroud soon went floppy. We had to set aside 15 minutes of our precious weather window to let the boat drift with the sails down so I could tension both the caps and, importantly, the lowers too, to stiffen the mast both laterally and fore-and-aft.



You don't need a straight edge to see the sag in this forestay, even in precious little wind. The rigging was overdue for tensioning

#### STEP 3

# Tweaking the mainsail

The headsail was perhaps the most obvious problem and the sail itself was well past its prime. Nonetheless, it could be pulled into an appreciably better shape than we started with. By contrast, the mainsail simply couldn't.

It was no surprise that the boat carried substantial weather helm in a breeze, because the main's principal contributions were drag and heeling force. Its shape was among the worst we've seen on Sail Clinic, and that's saying something. The light fabric had stretched to the point where the draught (the deepest point) was about two-thirds of the way aft from the luff towards the leech. There wasn't even a bolt rope to take the loads down the luff. The sailmakers simply hadn't tried.

With no great hopes, I went through the motions. First was to shorten the distance between the head of the sail and the masthead sheave so we could achieve greater luff tension to pull the draught forward. Because the luff had stretched, it was too long and couldn't be adequately tensioned. On the end of the halyard was a whipping, a thimble and a swivel shackle: wasteful and totally unnecessary. We saved the best on the dinghy-style arrangement shown in the photograph, with the help of a shackle purely because the hole in the headboard was too small to accommodate the bight of the halvard. At the other end of the luff we rigged up a Cunningham.

we could apply, plus maximum outhaul and more on the backstav. we achieved something: the draught crept forward marginally and the sail was slightly flatter, but it really was a case of silk purse and sow's ear. There's only one answer with a sail like this.

part of 3in (75mm) using a variation With as much luff tension as

> This is a crazy arrangement for the main halyard - heavy, complicated, expensive and a waste of space

#### STEP 2

## Tweaking the headsail

With the rigging slightly better than it was - though the increasing wind meant the forestay sag stayed the same - our next job was to do something about the headsail's sheeting angle.

Out came my Sail Clinic bag of assorted blocks, shackles and lengths of line, but we were still hampered by the lack of strongpoints on deck forward of the genoa's block on the coachroof.

The best we could manage was to rig up a (fixed) barber-hauler from the U-bolt to which the block is attached, then lead the sheet to another block on the base of the stanchion level with the forward end of the cockpit. After a bit of fiddling, and with plenty of sheet tension to flatten the sail, we achieved what was probably the best we could manage there and then. Cluttering up the leeward deck, it would not be ideal as a permanent solution but proved a point.



Here the headsail is clear of the rigging, yet still sheeted far enough inboard to allow a reasonable pointing angle. The twist isn't wildly excessive



And this is how we did it, using what limited strong-points the boat had to offer. It wouldn't do permanently, but greatly improved the sail's efficiency



An improvised bodge with the help of a spare shackle saved crucial distance between the headboard and masthead sheave



This mainsail is more of a handbrake – it's hopelessly full and the draught is far too far aft



Now it's slightly less bad: that's about all that can be said for it. Anvone need a dust-sheet?



#### STEP 4

## Improving the mainsheet

Like many small cruisers, including the Kelt 550 that was the subject of our Sail Clinics in PBOs December 2013 and October 2014, the Sun Way has a mainsheet taken to a strong-point on the cockpit sole. In the five minutes we had left before the rain started in earnest, and with the wind already gusting over 20 knots, we rigged up a partial solution using a transom bridle as we did on the Kelt. Ideally, the fall from the boom to the cockpit sole would be removed entirely.

This partial quick fix shows how the boom can be sheeted closer to the centreline without excessive leech tension. We covered the whys and wherefores in the Kelt features.



Among a host of other drawbacks, the original system results in an inefficient sheeting angle...



.. whereas a transom bridle offers many advantages. Much could be improved: this was rigged up hastily as an example of a partial solution

#### **PBO** conclusion

### What we achieved

Up against the constant threat of rain and in a wind that was building by the minute, we had no time to assess the effects of every change as we made it. We know that Peter had a problem with the boat as she was to start with. By the time we had finished, she wasn't going badly considering the state of the sails in general and the mainsail in particular. In a gusty 15-20 knots blowing over flat water we were logging speeds in the high 4s, tacking consistently through around 80° by the compass and not making excessive leeway. The helm would load up if we let the boat heel too far, but most of the time it was perfectly manageable. While no one else was out that day – they must have seen the forecast - I don't think we would have fared too badly against any broadly comparable boats with badly stretched sails. It was a useful outing.

#### **Permanent solutions**

A new mainsail is a must-have. One leading sailmaker to whom I showed the photographs suggested making it fully battened and as flat as necessary to work with a minimal-overlap headsail sheeted to tracks on the coachroof inboard of and just abaft the chainplates. This would be subject to the practicalities of reaching and reinforcing the underside of the coachroof.

Given the Sun Way's modest rig and Peter's observation that she's underpowered much of the time, losing the overlap might seem a strange idea. On the other hand, a well-cut sail of this type would generate much more drive than the current stretched overlapper and would quite possibly be the most efficient solution of all.

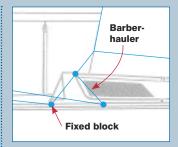
Losing the overlap needn't make it much smaller, because most of the area could be regained in the luff and upper



This shot highlights two issues. One is that the rake should be reduced. The other is that the headfoil stops well below the hounds, wasting headsail area

leech if the headsail reefing system were replaced by one whose headfoil extended all the way to the hounds. Not only does the current one stop well short, but it's also too big, heavy and bulky for the Sun Way, being of a type that's used on boats up to around 30ft (9m).

The longer luff of a new headsail set on a lighter, full-length headfoil



would result in a higher (more efficient) aspect ratio. A closesheeting sail, cut carefully and with vertical battens in the leech to help maximise the area, should do the business.

If Peter doesn't want to spend that sort of money – and again subject to the deck-reinforcement guestion - he could fit a foot-block and barber-hauler attachment on the side decks for around £100 and stick with the same sail.

There are several ways to get this boat going better. Of course, if any readers own Sun Way 21s and would like to tell us what they have found, we would be delighted to hear.



# Sharpening chisels and plane irons

Blunt tools a problem? Razor-sharp chisels and planes produce a much better job and are easier and safer to use. Julian Peckham shows how it's done

hen I was a trainee boatbuilder, one of the first things I was taught was how to sharpen woodworking tools. Blunt tools are terrible to work with: a blunt plane is as good as useless, while blunt chisels are difficult to use and verge on the dangerous – it's so easy to slip and hurt yourself if a chisel is not cutting as it should.

The trick with tools is to sharpen them little and often. It may seem a bit of a faff to have to keep stopping what you're doing to re-sharpen, but in the long run it'll save you time and effort – and it's really quite simple. You can get all sorts of accessories such as honing guides to maintain the correct angle, leather strops and special oils, but really all the practical boat owner needs is an oilstone, some thin oil and a bit of rag to clean up with.

In an ideal world we'd never use our woodworking tools for anything other than that for which they were intended, but I'm as guilty as anyone: I've used the 12mm chisel above for knocking tiles off the bathroom wall. It looks knackered, but it can be saved...



## Making a damaged chisel good for sharpening

These first few steps are all about making life easier so a badly-damaged chisel is ready to be sharpened on the oilstone. It's perfectly possible to grind the primary bevel using the coarse side of the oilstone – that's what you'd do if the chisel condition wasn't too bad – but it's much quicker and easier to use a bench grinder if you have one.



Mark the end off square with a set square and permanent marker.

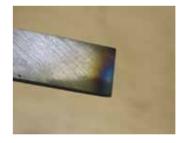


Grind off the end to your line – I'm using a bench grinder, but with care you could use an angle grinder.



Now we have to grind the primary bevel. The standard bevel angle for both chisels and plane irons is 30° or thereabouts.





ABOVE LEFT When using a bench grinder or angle grinder, don't try to take off too much metal in a hurry or you'll overheat the chisel tip. You'll know if you're overcooking it – the chisel tip will turn blue (ABOVE). You want to avoid this because the metal will lose its temper or hardness.



Grind until the bevel is within a hair's breadth of the chisel edge, and the first part of the job is done.



An angle grinder will do the job if you're at the boat and don't have access to a bench grinder.

### All about oilstones

ilstones are generally combination stones one side has a coarse abrasive used for grinding the bevel, the other a finer abrasive for honing a razor-sharp edge.

You'll need to hold the stone firm while using it to sharpen, so if your stone doesn't have a fitted box it's a good idea to make one from scrap

wood - this will make it easier to clamp the stone in a vice or Workmate-type bench.

To use an oilstone, you'll obviously need oil - special oils are available, but in reality any light machine oil (3-in-One etc) will do. And if you're really stuck, a cheap and effective alternative is baby oil.

When you've finished with the oilstone, remember to wipe off the excess oil.



If sharpening a narrow chisel, draw back and forth in a figure-of-eight pattern



When pushing and drawing a blade over the oilstone, try as much as possible to use the whole of the oilstone's width and length to avoid wearing a hollow in the stone. Achieve this by, for instance, holding a wide plane blade at an angle so it just covers the stone's width as you draw

## Sharpening a chisel on an oilstone



Start with the back of the chisel held flat against the oilstone. The aim is to ensure the steel is flat right down to the tip, so push and draw it backwards and forwards on the stone with a firm pressure. If the chisel was very blunt, start with the coarse side of the stone. If you're merely returning it to super-sharpness you can use the fine side of the stone.



You'll know the back of the chisel is flat when the stone's grinding or honing marks reach to the very tip. If the marks stop short it's because the tip is rounded: you'll need to carry on a bit longer.



Now we need to create the cutting edge. With the primary bevel held flat to the oilstone (chisel at 30°), raise it a couple of degrees further before firmly pushing and drawing it back and forth on the oilstone. Again, use the coarse side of the stone if you're sharpening a newly-ground chisel, the finer side if you're tickling up an edge with which you've been working.



It shouldn't take much to get a nice, straight secondary bevel on the blade.



Now, however, there'll be a burr on the back edge of the blade - if you're careful you can feel it with your thumb.



We'll need to remove this by turning the chisel flat on its back again, and drawing it back and forth just a few times on the fine side of the stone.



on the front of the blade so, holding it at the correct angle, gently draw the front of the blade back on the stone once or twice. Repeat this and the previous step a couple of times until the burr is barely noticeable.



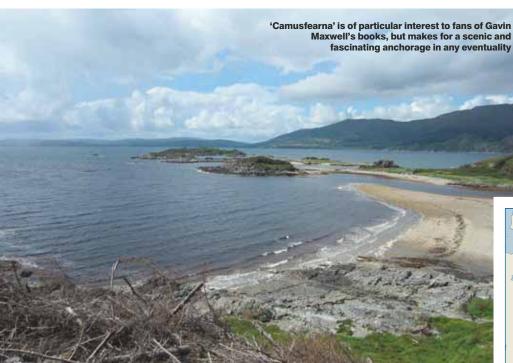
Remove the final burr by nicking the blade across the piece of scrap timber. It's now super-sharp and ready for action. INSET A sharp chisel will easily cut across an end grain. 🔞



# **PBO** Cruising Notes

#### Readers' cruising destinations, near and far

We pay for your published cruising stories and harbour updates. Email pbo@timeinc.com or write to the address at the top of page 5







# **Mooring of bright water**

John Simpson shines a spotlight on 'Camusfearna' (Sandaig), Gavin Maxwell's beloved anchorage on Kyle Rhea

here's an interesting anchorage if you are cruising on the east side of Skye, whether you're heading north or south. It is particularly interesting if you happen to be a fan of Gavin Maxwell and have read his classic best-seller Ring of Bright Water, about living with otters.

'Camusfearna', as Maxwell facetiously named Sandaig (in an attempt to keep it anonymous!), can make a very useful stopover in the south-east part of Kyle

#### **ABOUT THE AUTHOR**



John Simpson has sailed all his life and owned several types of boat. He has crossed

the Atlantic single-handed three times, and earned a living teaching sailing to others around the world. Rhea. Catching a fair tide through both Kyles – Rhea and Lochalsh – while heading north is important. Even on Neaps, the tide runs at three to four knots. Similarly, if you are travelling south with fair tide but into a foul wind, it's a longish beat down Kyle Rhea before finding another anchorage.

#### Lee shore

If you need some supplies or are doing a crew change on the boat, this certainly isn't the right spot. The nearest place to come alongside is just east of the Skye Bridge at the Kyle of Lochalsh. There's a pontoon here, but it can be quite busy in the summer! (Another lovely alternative anchorage can be had in Loch Alsh, close to the iconic Eilean Donan Castle.)

Good shelter for anchoring out of the wind on a visit to Camusfearna can be found from the north (through east) to a south-westerly direction, by anchoring either in the southern bay or tucked in close to the Sandaig islands. However, it's best avoided in westerlies of any strength: it's a lee shore and can be subject to strong, gusty katabatic winds. Strong southerlies can also heap up the waves as they get funnelled coming north from the Sound of Sleat.

We've seen many porpoises and common dolphins around here. My mate George pointed out a sea eagle to me, soaring just above the mountaintops, while another mate, Angus, was lucky enough to see several minke whales in the Kyle last year – along with an inverted French catamaran!

Once ashore, it's a very atmospheric place – especially if you've read Maxwell's magical books. The clear river stream must have made it a perfect location for him to live in and study his otters. If you've anchored by the islands, this stream can be crossed at HW by



The celebrated stream where Maxwell studied his otters



The anchorage at high water



Inside the Dun Troddan broch...

a rickety rope bridge, by following it further east. Almost nothing remains of Maxwell's home now: tragically, the house he rented here burned down. There are a couple of rocks with brass plaques to commemorate where his ashes were placed and where Edal, his famous otter, was buried. Maxwell moved further north to Eilean Bàn ('White Island', now situated beneath the Skye Bridge) for the last part of his life.

#### **Well worth exploring**

Provided you are feeling energetic and the forecast is settled enough to enable you to leave your boat unattended for a day, this area of Glenelg is well worth exploring – especially if you have folding bikes on the boat.

The fascinating remains of two old brochs, Dun Telve and Dun Troddan, can be seen just a few miles away by cycling east out of the forest track onto the tarmac road going north. Brochs are 10m-tall, double-skinned round towers scattered over various parts of the Highlands: little is known about the people who inhabited these 2,000-year-old dwellings. Should you require refreshment after walking, there's an excellent caravan tea room by the brochs. The lady here makes



... and the exterior of Dun Telve

lovely cakes and lives in a wooden house with a huge' living' roof.

Heading back from the brochs and continuing onto the main road towards Glenelg village is only worth attempting if you have enough energy left. There's another beautiful sandy beach at the shallow, mazy entrance to the River Glenmore, and just north of the village shop is a fascinating, partly ruined, 17th century fourstorey building. 'Bernera' was the largest of four local barracks built (using some stones from the Gleann Beag brochs) by the Hanoverian government in an attempt to stop another Jacobite uprising by gaining control of the crossing from Skye at Kyle Rhea. Two hundred soldiers were able to be housed here when the building was finished in 1725: their officers were quartered just opposite the current shop.

Camusfearna is a lovely, wild place: a highly recommended anchorage provided you have good weather and some spare time. If you are lucky enough to visit, it might make you keen to read (or re-read) some of Gavin Maxwell's books. He was paramount among several brilliant '50s and '60s authors who explained to us how quickly we are spoiling our own environment.

# **Free anchorage!**

**Studiand Bay, Dorset** 



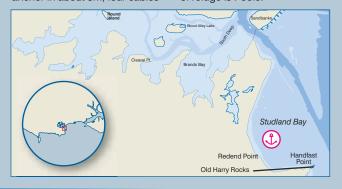
Studland Bay offers good shelter in all but southerly winds

tudland is a popular anchorage on the western side of Poole Bay on the south Dorset coast, well protected from a westerly quadrant. Handfast Point and Old Harry Rocks are useful landmarks. This scenic spot can be unbelievably busy with leisure boaters in high summer.

The anchorage is good in winds from the south, west and north-west, but is exposed to the north and east. It's best to anchor in about 3m, four cables

west-north-west of Handfast Point, but beware poor holding due to weed.

The northern end of the bay is shallow, and beware the unmarked rocks south-east of Redend Point. Speed limit is 5 knots in buoyed areas off beach. Beware of swimmers, and avoid the no-anchor zone (because of eelgrass) marked with small yellow buoys in the south end. Water, supplies, refreshments and toilets can be found ashore. The nearest port of refuge is Poole.



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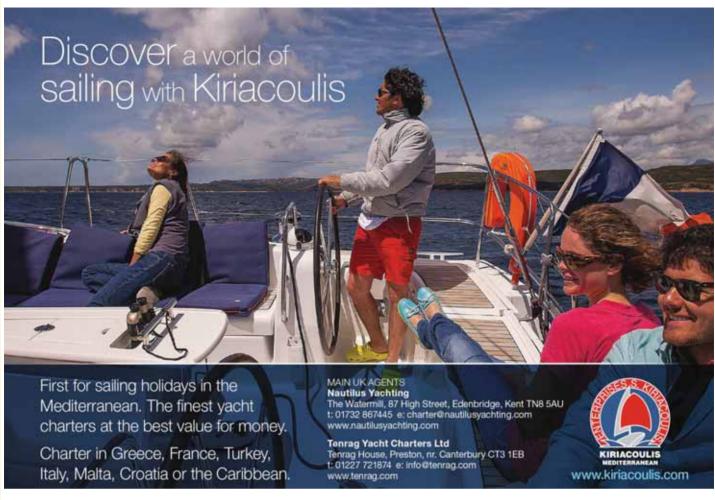


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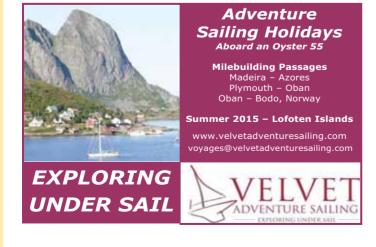


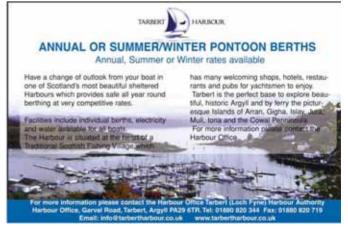
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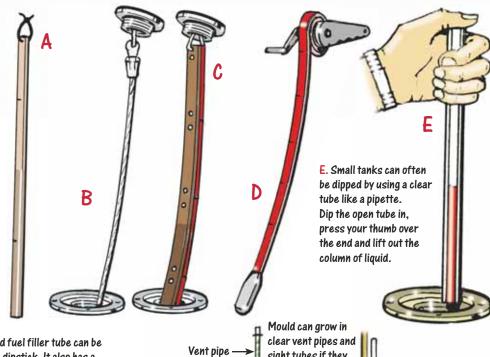
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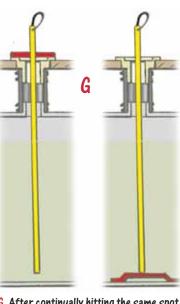
# Dipsticks and sight tubes for measuring liquids

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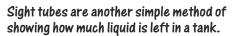
- A. A light-coloured piece of wood is the simplest. Just add known increments of liquid to the tank and mark the levels on the stick with notches, or scribed lines. If the filler pipe does not go straight down into the tank, use a flexible dipstick.
- B. A piece of rigging wire with smooth end fittings works, but can be hard to read.
- C. One French boat had a leather belt stiffened with sections of wood
- D. Or you can buy very long flexible dipsticks made from stiff tape on a reel.



F. This pierced fuel filler tube can be lifted out as a dipstick. It also has a sealed base that acts as a sump to collect any dirt and water.



G. After continually hitting the same spot on the tank's bottom for years, there are stories of dipsticks going straight through! So a simple cross bar, like a sword guard, or a plate fixed to the bottom of the tank makes sense.



sight tubes if they

are exposed to light.

- H. They can be added to water tanks by plumbing them in between the supply line and the vent pipe.
- I. However, it's often easier to tee one into the supply line somewhere else. But it must be big enough to prevent spillage when heeled, cope with the suction of the pump and be vented to atmosphere with a small hole that won't affect the suction of the pump.
- J. Sight tubes in fuel tanks can break the safety rules of some countries. But if there are stopcocks fitted top and bottom, which are only opened when checking the level, they might be deemed safe.
- K. Diagonal stripes behind the tube are refracted to show the level of the fluid more easily.



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